ANALYTICAL REPORT

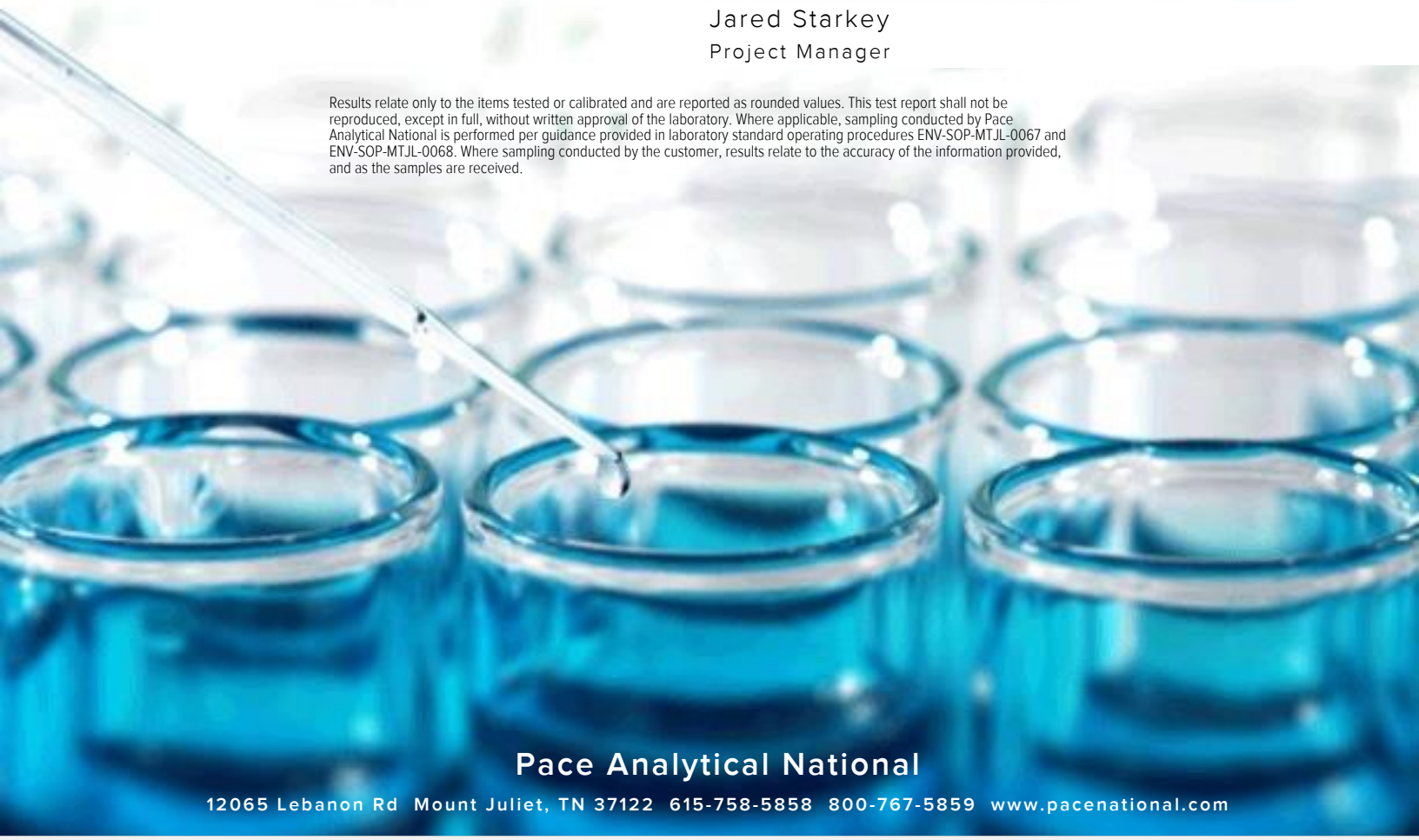
August 18, 2023

PES Environmental, Inc.- WA

Sample Delivery Group:	L1645592
Samples Received:	08/12/2023
Project Number:	
Description:	American Linen
Report To:	Bill Haldeman 2101 Fourth Ave., Suite 1310 Seattle, WA 98121

Entire Report Reviewed By:

Jared Starkey
Project Manager



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SV-13-080923 L1645592-01 Air

Collected by: OM
Collected date/time: 08/09/23 14:33
Received date/time: 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2114251	1	08/15/23 17:29	08/15/23 17:29	GH	Mt. Juliet, TN

SV-12-080923 L1645592-02 Air

Collected by: OM
Collected date/time: 08/09/23 15:23
Received date/time: 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2114251	1	08/15/23 18:07	08/15/23 18:07	GH	Mt. Juliet, TN

SV-23-081023 L1645592-03 Air

Collected by: OM
Collected date/time: 08/10/23 15:58
Received date/time: 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2114251	1	08/15/23 18:45	08/15/23 18:45	GH	Mt. Juliet, TN

SV-22-081123 L1645592-04 Air

Collected by: OM
Collected date/time: 08/11/23 08:16
Received date/time: 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2114251	1	08/15/23 19:23	08/15/23 19:23	GH	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jared Starkey
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	7.89	18.7		1	WG2114251
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2114251
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2114251
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2114251
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2114251
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2114251
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2114251
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2114251
Carbon disulfide	75-15-0	76.10	0.200	0.622	4.70	14.6		1	WG2114251
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2114251
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2114251
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2114251
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2114251
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2114251
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2114251
Cyclohexane	110-82-7	84.20	0.200	0.689	0.630	2.17		1	WG2114251
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2114251
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2114251
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2114251
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2114251
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2114251
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2114251
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2114251
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2114251
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2114251
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2114251
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2114251
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2114251
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2114251
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2114251
Ethanol	64-17-5	46.10	2.50	4.71	29.9	56.4		1	WG2114251
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2114251
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2114251
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.342	1.92		1	WG2114251
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.504	2.49		1	WG2114251
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2114251
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2114251
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2114251
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2114251
n-Hexane	110-54-3	86.20	0.630	2.22	1.34	4.72		1	WG2114251
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2114251
Methylene Chloride	75-09-2	84.90	0.200	0.694	3.77	13.1		1	WG2114251
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2114251
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2114251
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2114251
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2114251
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2114251
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2114251
2-Propanol	67-63-0	60.10	1.25	3.07	2.58	6.34		1	WG2114251
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2114251
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2114251
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2114251
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.575	3.90		1	WG2114251
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2114251
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2114251
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2114251

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2114251
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2114251
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2114251
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2114251
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2114251
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2114251
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2114251
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2114251
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2114251
Xylenes, Total	1330-20-7	106.16	0.600	2.61	ND	ND		1	WG2114251
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2114251
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2114251
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*97.9*				WG2114251

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	28.4	67.5		1	WG2114251
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2114251
Benzene	71-43-2	78.10	0.200	0.639	5.60	17.9		1	WG2114251
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2114251
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2114251
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2114251
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2114251
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2114251
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2114251
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2114251
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2114251
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2114251
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2114251
Chloromethane	74-87-3	50.50	0.200	0.413	0.349	0.721		1	WG2114251
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2114251
Cyclohexane	110-82-7	84.20	0.200	0.689	5.85	20.1		1	WG2114251
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2114251
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2114251
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2114251
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2114251
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2114251
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2114251
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2114251
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2114251
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2114251
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2114251
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2114251
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2114251
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2114251
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2114251
Ethanol	64-17-5	46.10	2.50	4.71	96.5	182		1	WG2114251
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2114251
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2114251
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.421	2.37		1	WG2114251
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.441	2.18		1	WG2114251
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2114251
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2114251
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2114251
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2114251
n-Hexane	110-54-3	86.20	0.630	2.22	6.21	21.9		1	WG2114251
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2114251
Methylene Chloride	75-09-2	84.90	0.200	0.694	5.73	19.9		1	WG2114251
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2114251
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	2.29	6.75		1	WG2114251
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2114251
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2114251
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2114251
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2114251
2-Propanol	67-63-0	60.10	1.25	3.07	6.97	17.1		1	WG2114251
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2114251
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2114251
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2114251
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.713	4.84		1	WG2114251
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	5.73	16.9		1	WG2114251
Toluene	108-88-3	92.10	0.500	1.88	1.70	6.40		1	WG2114251
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2114251

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2114251
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2114251
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2114251
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2114251
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2114251
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	18.0	84.1		1	WG2114251
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2114251
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2114251
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2114251
Xylenes, Total	1330-20-7	106.16	0.600	2.61	ND	ND		1	WG2114251
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2114251
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2114251
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*97.0*				WG2114251

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	42.9	102		1	WG2114251
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2114251
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2114251
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2114251
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2114251
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2114251
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2114251
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2114251
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.435	1.35		1	WG2114251
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2114251
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2114251
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2114251
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2114251
Chloromethane	74-87-3	50.50	0.200	0.413	0.536	1.11		1	WG2114251
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2114251
Cyclohexane	110-82-7	84.20	0.200	0.689	5.35	18.4		1	WG2114251
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2114251
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2114251
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2114251
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2114251
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2114251
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2114251
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2114251
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2114251
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2114251
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2114251
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2114251
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2114251
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2114251
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2114251
Ethanol	64-17-5	46.10	2.50	4.71	240	453	E	1	WG2114251
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2114251
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2114251
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.209	1.17		1	WG2114251
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.412	2.04		1	WG2114251
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2114251
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2114251
Heptane	142-82-5	100	0.200	0.818	0.806	3.30		1	WG2114251
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2114251
n-Hexane	110-54-3	86.20	0.630	2.22	6.27	22.1		1	WG2114251
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2114251
Methylene Chloride	75-09-2	84.90	0.200	0.694	9.65	33.5		1	WG2114251
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2114251
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	2.99	8.82		1	WG2114251
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2114251
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2114251
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2114251
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2114251
2-Propanol	67-63-0	60.10	1.25	3.07	16.6	40.8		1	WG2114251
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2114251
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2114251
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2114251
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.215	1.46		1	WG2114251
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	7.69	22.7		1	WG2114251
Toluene	108-88-3	92.10	0.500	1.88	2.56	9.64		1	WG2114251
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2114251

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2114251
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2114251
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2114251
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2114251
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2114251
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2114251
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2114251
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2114251
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2114251
Xylenes, Total	1330-20-7	106.16	0.600	2.61	ND	ND		1	WG2114251
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2114251
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2114251
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*96.8*				WG2114251

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	4.80	11.4		1	WG2114251
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2114251
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2114251
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2114251
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2114251
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2114251
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2114251
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2114251
Carbon disulfide	75-15-0	76.10	0.200	0.622	3.78	11.8		1	WG2114251
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2114251
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2114251
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2114251
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2114251
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2114251
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2114251
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2114251
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2114251
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2114251
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2114251
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2114251
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2114251
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2114251
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2114251
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2114251
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2114251
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2114251
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2114251
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2114251
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2114251
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2114251
Ethanol	64-17-5	46.10	2.50	4.71	8.77	16.5		1	WG2114251
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2114251
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2114251
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.820	4.61		1	WG2114251
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.442	2.19		1	WG2114251
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2114251
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2114251
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2114251
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2114251
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2114251
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2114251
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.742	2.58		1	WG2114251
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2114251
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2114251
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2114251
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2114251
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2114251
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2114251
2-Propanol	67-63-0	60.10	1.25	3.07	ND	ND		1	WG2114251
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2114251
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2114251
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2114251
Tetrachloroethylene	127-18-4	166	0.200	1.36	2.78	18.9		1	WG2114251
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2114251
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2114251
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2114251

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	1.34	7.29		1	WG2114251
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2114251
Trichloroethylene	79-01-6	131	0.200	1.07	0.973	5.21		1	WG2114251
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2114251
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2114251
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2114251
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2114251
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2114251
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2114251
Xylenes, Total	1330-20-7	106.16	0.600	2.61	ND	ND		1	WG2114251
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2114251
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2114251
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*97.4*				WG2114251

Method Blank (MB)

(MB) R3962210-3 08/15/23 11:13

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Allyl chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethanol	0.651	J	0.265	2.50
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
n-Hexane	U		0.206	0.630

Method Blank (MB)

(MB) R3962210-3 08/15/23 11:13

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Isopropylbenzene	U		0.0777	0.200
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	U		0.0932	1.25
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
Xylenes, Total	U		0.135	0.600
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
(S) 1,4-Bromofluorobenzene	*96.9*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3962210-1 08/15/23 08:45 • (LCSD) R3962210-2 08/15/23 09:23

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	3.72	3.76	99.2	100	70.0-130			1.07	25
Allyl chloride	3.75	4.14	4.13	110	110	70.0-130			0.242	25
Benzene	3.75	4.02	4.05	107	108	70.0-130			0.743	25
Benzyl Chloride	3.75	4.07	4.05	109	108	70.0-152			0.493	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3962210-1 08/15/23 08:45 • (LCSD) R3962210-2 08/15/23 09:23

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	3.75	3.96	4.03	106	107	70.0-130			1.75	25
Bromoform	3.75	3.66	3.63	97.6	96.8	70.0-130			0.823	25
Bromomethane	3.75	4.01	3.88	107	103	70.0-130			3.30	25
1,3-Butadiene	3.75	4.14	4.07	110	109	70.0-130			1.71	25
Carbon disulfide	3.75	4.03	4.03	107	107	70.0-130			0.000	25
Carbon tetrachloride	3.75	3.84	3.87	102	103	70.0-130			0.778	25
Chlorobenzene	3.75	3.88	3.92	103	105	70.0-130			1.03	25
Chloroethane	3.75	4.14	3.88	110	103	70.0-130			6.48	25
Chloroform	3.75	4.02	3.99	107	106	70.0-130			0.749	25
Chloromethane	3.75	4.11	4.23	110	113	70.0-130			2.88	25
2-Chlorotoluene	3.75	3.88	3.91	103	104	70.0-130			0.770	25
Cyclohexane	3.75	3.87	3.92	103	105	70.0-130			1.28	25
Dibromochloromethane	3.75	3.85	3.87	103	103	70.0-130			0.518	25
1,2-Dibromoethane	3.75	3.85	3.89	103	104	70.0-130			1.03	25
1,2-Dichlorobenzene	3.75	3.76	3.79	100	101	70.0-130			0.795	25
1,3-Dichlorobenzene	3.75	3.77	3.82	101	102	70.0-130			1.32	25
1,4-Dichlorobenzene	3.75	3.89	3.94	104	105	70.0-130			1.28	25
1,2-Dichloroethane	3.75	4.05	4.09	108	109	70.0-130			0.983	25
1,1-Dichloroethane	3.75	4.00	4.03	107	107	70.0-130			0.747	25
1,1-Dichloroethene	3.75	4.02	4.08	107	109	70.0-130			1.48	25
cis-1,2-Dichloroethene	3.75	3.53	3.67	94.1	97.9	70.0-130			3.89	25
trans-1,2-Dichloroethene	3.75	4.01	4.04	107	108	70.0-130			0.745	25
1,2-Dichloropropane	3.75	4.01	4.07	107	109	70.0-130			1.49	25
cis-1,3-Dichloropropene	3.75	3.96	3.99	106	106	70.0-130			0.755	25
trans-1,3-Dichloropropene	3.75	3.96	3.98	106	106	70.0-130			0.504	25
1,4-Dioxane	3.75	3.44	3.72	91.7	99.2	70.0-140			7.82	25
Ethanol	3.75	4.10	4.41	109	118	55.0-148			7.29	25
Ethylbenzene	3.75	3.82	3.87	102	103	70.0-130			1.30	25
4-Ethyltoluene	3.75	3.96	3.97	106	106	70.0-130			0.252	25
Trichlorofluoromethane	3.75	4.11	4.04	110	108	70.0-130			1.72	25
Dichlorodifluoromethane	3.75	4.05	4.11	108	110	64.0-139			1.47	25
1,1,2-Trichlorotrifluoroethane	3.75	3.87	3.85	103	103	70.0-130			0.518	25
1,2-Dichlorotetrafluoroethane	3.75	4.05	4.07	108	109	70.0-130			0.493	25
Heptane	3.75	4.22	4.27	113	114	70.0-130			1.18	25
Hexachloro-1,3-butadiene	3.75	3.68	3.71	98.1	98.9	70.0-151			0.812	25
n-Hexane	3.75	3.97	3.99	106	106	70.0-130			0.503	25
Isopropylbenzene	3.75	3.82	3.87	102	103	70.0-130			1.30	25
Methylene Chloride	3.75	3.99	4.01	106	107	70.0-130			0.500	25
Methyl Butyl Ketone	3.75	4.59	4.59	122	122	70.0-149			0.000	25
2-Butanone (MEK)	3.75	3.84	4.10	102	109	70.0-130			6.55	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3962210-1 08/15/23 08:45 • (LCSD) R3962210-2 08/15/23 09:23

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	4.21	4.31	112	115	70.0-139			2.35	25
Methyl methacrylate	3.75	4.24	4.31	113	115	70.0-130			1.64	25
MTBE	3.75	3.88	3.90	103	104	70.0-130			0.514	25
Naphthalene	3.75	4.13	4.13	110	110	70.0-159			0.000	25
2-Propanol	3.75	3.78	4.13	101	110	70.0-139			8.85	25
Propene	3.75	4.13	4.27	110	114	64.0-144			3.33	25
Styrene	3.75	3.95	4.00	105	107	70.0-130			1.26	25
1,1,2,2-Tetrachloroethane	3.75	3.91	3.95	104	105	70.0-130			1.02	25
Tetrachloroethylene	3.75	3.64	3.69	97.1	98.4	70.0-130			1.36	25
Tetrahydrofuran	3.75	4.28	4.27	114	114	70.0-137			0.234	25
Toluene	3.75	3.89	3.94	104	105	70.0-130			1.28	25
1,2,4-Trichlorobenzene	3.75	3.89	3.90	104	104	70.0-160			0.257	25
1,1,1-Trichloroethane	3.75	3.96	4.00	106	107	70.0-130			1.01	25
1,1,2-Trichloroethane	3.75	3.88	3.90	103	104	70.0-130			0.514	25
Trichloroethylene	3.75	3.85	3.86	103	103	70.0-130			0.259	25
1,2,4-Trimethylbenzene	3.75	3.94	4.01	105	107	70.0-130			1.76	25
1,3,5-Trimethylbenzene	3.75	3.96	4.08	106	109	70.0-130			2.99	25
2,2,4-Trimethylpentane	3.75	4.11	4.14	110	110	70.0-130			0.727	25
Vinyl chloride	3.75	4.06	4.08	108	109	70.0-130			0.491	25
Vinyl Bromide	3.75	4.05	3.87	108	103	70.0-130			4.55	25
Vinyl acetate	3.75	3.65	3.70	97.3	98.7	70.0-130			1.36	25
Xylenes, Total	11.3	11.8	11.9	104	105	70.0-130			0.844	25
m&p-Xylene	7.50	7.94	8.05	106	107	70.0-130			1.38	25
o-Xylene	3.75	3.83	3.90	102	104	70.0-130			1.81	25
(S) 1,4-Bromofluorobenzene				*97.1*	*97.7*	*60.0-140*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
PES Environmental, Inc.- WA

2101 Fourth Ave., Suite 1310
Seattle, WA 98121

Billing Information:
Attn: Accounts Payable
2101 4th Avenue, Suite 1310
Seattle, WA 98121

Report To:
Bill Haldeman

Email To:
Rachel.McLaughlin@nv5.com;bill.haldeman@nv5.com

Project Description: **American Linen**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **206-529-3980**

Client Project #

Lab Project #
PESENVSWA-ALP

Collected by (print): Osmin Monge

Site/Facility ID #

P.O. #
443018-1413001.05.601

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Three Day
___ Next Day ___ Five Day
___ Two Day STD

Date Results Needed

Sample ID	Can #	Flow Cont. #	Collection Date	Collection Time	Canister Pressure/Vacuum Initial	Canister Pressure/Vacuum Final	TO-15 Summa	Analysis	Analysis	Analysis	Rem./Contaminant	Sample # (lab only)
SV-13-080923	22116	11934	8/9/23	1433	-28	-5	X					-01
SV-12-080923	23740	13117	8/9/23	1523	-30	-5	X					-02
SV-23-081023	23299	23121	8/10/23	1558	-30	-4.5	X					-03
SV-22-081123	21868	024928	8/11/23	816	-30	-4.5						-04

Sample Receipt Checklist
COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N
If Applicable
VOA Zero Headspace: Y N
Pres.Correct/Check: Y N

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE
MT JULIET, TN
12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1145592
1126

Acctnum: **PESENVSWA**
Template: **T234544**
Prelogin: **P1013350**
PM: **546 - Jared Starkey**
PB:

Shipped Via: **FedEx Ground**

Remarks:

Samples returned via: __ UPS __ FedEx __ Courier __ _____
Tracking #
Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/11/23	1230			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Date: 8/12	Time: 0900
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:

Condition: (lab use only)
COC Seal Intact: ___ Y ___ N ___ NA
NCF:

ANALYTICAL REPORT

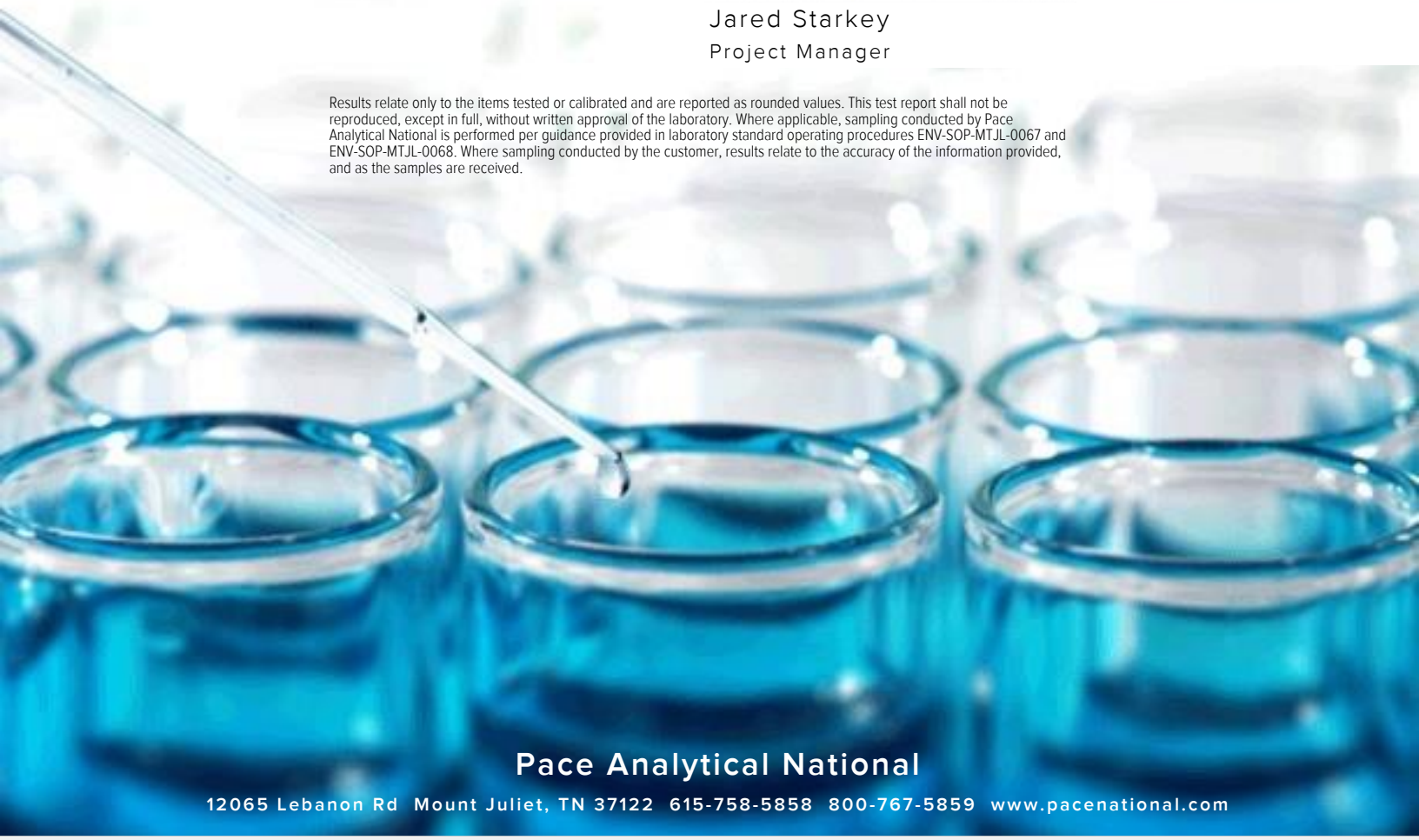
August 16, 2023

PES Environmental, Inc.- WA

Sample Delivery Group:	L1645594
Samples Received:	08/12/2023
Project Number:	
Description:	American Linen
Report To:	Bill Haldeman 2101 Fourth Ave., Suite 1310 Seattle, WA 98121

Entire Report Reviewed By:

Jared Starkey
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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SAMPLE SUMMARY

SV01-080923 L1645594-01 Air

Collected by: OM
Collected date/time: 08/09/23 10:08
Received date/time: 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2114306	1	08/15/23 15:28	08/15/23 15:28	DAH	Mt. Juliet, TN

SV-910-080923 L1645594-02 Air

Collected by: OM
Collected date/time: 08/09/23 09:00
Received date/time: 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2114306	1	08/15/23 16:09	08/15/23 16:09	DAH	Mt. Juliet, TN

SV-09-080923 L1645594-03 Air

Collected by: OM
Collected date/time: 08/09/23 11:34
Received date/time: 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2114306	1	08/15/23 16:49	08/15/23 16:49	DAH	Mt. Juliet, TN

SV-08-080923 L1645594-04 Air

Collected by: OM
Collected date/time: 08/09/23 13:02
Received date/time: 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2114306	1	08/15/23 17:30	08/15/23 17:30	DAH	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jared Starkey
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	14.2	33.7		1	WG2114306
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2114306
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2114306
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2114306
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2114306
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2114306
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2114306
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2114306
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2114306
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2114306
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2114306
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2114306
Chloroform	67-66-3	119	0.200	0.973	0.524	2.55		1	WG2114306
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2114306
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2114306
Cyclohexane	110-82-7	84.20	0.200	0.689	2.11	7.27		1	WG2114306
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2114306
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2114306
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2114306
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2114306
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2114306
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2114306
1,1-Dichloroethane	75-34-3	98	0.200	0.802	1.57	6.29		1	WG2114306
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2114306
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2114306
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2114306
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2114306
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2114306
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2114306
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2114306
Ethanol	64-17-5	46.10	2.50	4.71	20.3	38.3		1	WG2114306
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2114306
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.307	1.51		1	WG2114306
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2114306
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND		1	WG2114306
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2114306
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2114306
Heptane	142-82-5	100	0.200	0.818	0.379	1.55		1	WG2114306
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2114306
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2114306
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2114306
Methylene Chloride	75-09-2	84.90	0.200	0.694	1.74	6.04		1	WG2114306
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2114306
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2114306
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2114306
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2114306
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2114306
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2114306
2-Propanol	67-63-0	60.10	1.25	3.07	2.20	5.41		1	WG2114306
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2114306
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2114306
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2114306
Tetrachloroethylene	127-18-4	166	0.200	1.36	1.12	7.60		1	WG2114306
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2114306
Toluene	108-88-3	92.10	0.500	1.88	0.888	3.34		1	WG2114306
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2114306

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	3.66	19.9		1	WG2114306
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2114306
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2114306
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.475	2.33		1	WG2114306
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2114306
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2114306
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2114306
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2114306
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2114306
Xylenes, Total	1330-20-7	106.16	0.600	2.61	1.01	4.39		1	WG2114306
m&p-Xylene	1330-20-7	106	0.400	1.73	0.705	3.06		1	WG2114306
o-Xylene	95-47-6	106	0.200	0.867	0.308	1.34		1	WG2114306
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*100*				WG2114306

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	11.1	26.4		1	WG2114306
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2114306
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2114306
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2114306
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2114306
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2114306
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2114306
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2114306
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2114306
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2114306
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2114306
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2114306
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2114306
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2114306
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2114306
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2114306
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2114306
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2114306
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2114306
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2114306
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2114306
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2114306
1,1-Dichloroethane	75-34-3	98	0.200	0.802	1.73	6.93		1	WG2114306
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2114306
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2114306
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2114306
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2114306
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2114306
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2114306
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2114306
Ethanol	64-17-5	46.10	2.50	4.71	5.48	10.3		1	WG2114306
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2114306
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.296	1.45		1	WG2114306
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2114306
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND		1	WG2114306
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2114306
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2114306
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2114306
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2114306
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2114306
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2114306
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.218	0.757		1	WG2114306
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2114306
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	2.42	7.14		1	WG2114306
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2114306
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2114306
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2114306
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2114306
2-Propanol	67-63-0	60.10	1.25	3.07	1.91	4.69		1	WG2114306
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2114306
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2114306
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2114306
Tetrachloroethylene	127-18-4	166	0.200	1.36	1.99	13.5		1	WG2114306
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2114306
Toluene	108-88-3	92.10	0.500	1.88	0.798	3.01		1	WG2114306
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2114306

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	4.00	21.8		1	WG2114306
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2114306
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2114306
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.332	1.63		1	WG2114306
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2114306
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2114306
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2114306
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2114306
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2114306
Xylenes, Total	1330-20-7	106.16	0.600	2.61	1.05	4.56		1	WG2114306
m&p-Xylene	1330-20-7	106	0.400	1.73	0.737	3.20		1	WG2114306
o-Xylene	95-47-6	106	0.200	0.867	0.316	1.37		1	WG2114306
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.6*				WG2114306

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	4.95	11.8		1	WG2114306
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2114306
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2114306
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2114306
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2114306
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2114306
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2114306
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2114306
Carbon disulfide	75-15-0	76.10	0.200	0.622	6.30	19.6		1	WG2114306
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2114306
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2114306
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2114306
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2114306
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2114306
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2114306
Cyclohexane	110-82-7	84.20	0.200	0.689	0.610	2.10		1	WG2114306
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2114306
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2114306
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2114306
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2114306
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2114306
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2114306
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2114306
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2114306
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2114306
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2114306
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2114306
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2114306
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2114306
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2114306
Ethanol	64-17-5	46.10	2.50	4.71	4.84	9.13		1	WG2114306
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2114306
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2114306
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.702	3.94		1	WG2114306
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.403	1.99		1	WG2114306
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2114306
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2114306
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2114306
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2114306
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2114306
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2114306
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.411	1.43		1	WG2114306
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2114306
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2114306
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2114306
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2114306
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2114306
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2114306
2-Propanol	67-63-0	60.10	1.25	3.07	ND	ND		1	WG2114306
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2114306
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2114306
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2114306
Tetrachloroethylene	127-18-4	166	0.200	1.36	6.69	45.4		1	WG2114306
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2114306
Toluene	108-88-3	92.10	0.500	1.88	0.566	2.13		1	WG2114306
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2114306

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2114306
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2114306
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2114306
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.211	1.04		1	WG2114306
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2114306
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2114306
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2114306
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2114306
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2114306
Xylenes, Total	1330-20-7	106.16	0.600	2.61	0.650	2.82		1	WG2114306
m&p-Xylene	1330-20-7	106	0.400	1.73	0.470	2.04		1	WG2114306
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2114306
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.2*				WG2114306

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	4.60	10.9		1	WG2114306
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2114306
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2114306
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2114306
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2114306
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2114306
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2114306
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2114306
Carbon disulfide	75-15-0	76.10	0.200	0.622	2.24	6.97		1	WG2114306
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2114306
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2114306
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2114306
Chloroform	67-66-3	119	0.200	0.973	0.456	2.22		1	WG2114306
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2114306
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2114306
Cyclohexane	110-82-7	84.20	0.200	0.689	0.247	0.851		1	WG2114306
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2114306
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2114306
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2114306
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2114306
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2114306
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2114306
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2114306
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2114306
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2114306
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2114306
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2114306
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2114306
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2114306
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2114306
Ethanol	64-17-5	46.10	2.50	4.71	4.56	8.60		1	WG2114306
Ethylbenzene	100-41-4	106	0.200	0.867	0.214	0.928		1	WG2114306
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2114306
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.532	2.99		1	WG2114306
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.372	1.84		1	WG2114306
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2114306
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2114306
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2114306
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2114306
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2114306
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2114306
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.261	0.906		1	WG2114306
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2114306
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2114306
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2114306
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2114306
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2114306
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2114306
2-Propanol	67-63-0	60.10	1.25	3.07	1.38	3.39		1	WG2114306
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2114306
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2114306
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2114306
Tetrachloroethylene	127-18-4	166	0.200	1.36	4.48	30.4		1	WG2114306
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2114306
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2114306
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2114306

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2114306
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2114306
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2114306
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.316	1.55		1	WG2114306
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2114306
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2114306
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2114306
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2114306
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2114306
Xylenes, Total	1330-20-7	106.16	0.600	2.61	1.23	5.34		1	WG2114306
m&p-Xylene	1330-20-7	106	0.400	1.73	1.02	4.42		1	WG2114306
o-Xylene	95-47-6	106	0.200	0.867	0.211	0.915		1	WG2114306
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.7*				WG2114306

Method Blank (MB)

(MB) R3961359-3 08/15/23 10:57

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Allyl chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethanol	0.418	J	0.265	2.50
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
n-Hexane	U		0.206	0.630

Method Blank (MB)

(MB) R3961359-3 08/15/23 10:57

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Isopropylbenzene	U		0.0777	0.200
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	0.144	J	0.0932	1.25
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
Xylenes, Total	U		0.135	0.600
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
(S) 1,4-Bromofluorobenzene	*98.0*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3961359-1 08/15/23 09:35 • (LCSD) R3961359-2 08/15/23 10:17

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	3.46	3.50	92.3	93.3	70.0-130			1.15	25
Allyl chloride	3.75	3.87	3.84	103	102	70.0-130			0.778	25
Benzene	3.75	3.66	3.66	97.6	97.6	70.0-130			0.000	25
Benzyl Chloride	3.75	3.94	3.93	105	105	70.0-152			0.254	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3961359-1 08/15/23 09:35 • (LCSD) R3961359-2 08/15/23 10:17

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	3.75	3.97	3.96	106	106	70.0-130			0.252	25
Bromoform	3.75	3.91	3.95	104	105	70.0-130			1.02	25
Bromomethane	3.75	3.88	3.80	103	101	70.0-130			2.08	25
1,3-Butadiene	3.75	3.87	3.84	103	102	70.0-130			0.778	25
Carbon disulfide	3.75	3.79	3.77	101	101	70.0-130			0.529	25
Carbon tetrachloride	3.75	4.10	4.14	109	110	70.0-130			0.971	25
Chlorobenzene	3.75	3.71	3.72	98.9	99.2	70.0-130			0.269	25
Chloroethane	3.75	3.61	3.65	96.3	97.3	70.0-130			1.10	25
Chloroform	3.75	3.87	3.82	103	102	70.0-130			1.30	25
Chloromethane	3.75	4.04	4.01	108	107	70.0-130			0.745	25
2-Chlorotoluene	3.75	3.91	3.90	104	104	70.0-130			0.256	25
Cyclohexane	3.75	3.68	3.67	98.1	97.9	70.0-130			0.272	25
Dibromochloromethane	3.75	3.92	3.99	105	106	70.0-130			1.77	25
1,2-Dibromoethane	3.75	3.80	3.82	101	102	70.0-130			0.525	25
1,2-Dichlorobenzene	3.75	3.93	3.97	105	106	70.0-130			1.01	25
1,3-Dichlorobenzene	3.75	3.98	3.99	106	106	70.0-130			0.251	25
1,4-Dichlorobenzene	3.75	3.99	3.96	106	106	70.0-130			0.755	25
1,2-Dichloroethane	3.75	3.89	3.97	104	106	70.0-130			2.04	25
1,1-Dichloroethane	3.75	3.99	3.90	106	104	70.0-130			2.28	25
1,1-Dichloroethene	3.75	4.03	3.89	107	104	70.0-130			3.54	25
cis-1,2-Dichloroethene	3.75	3.85	3.78	103	101	70.0-130			1.83	25
trans-1,2-Dichloroethene	3.75	3.94	3.89	105	104	70.0-130			1.28	25
1,2-Dichloropropane	3.75	3.63	3.68	96.8	98.1	70.0-130			1.37	25
cis-1,3-Dichloropropene	3.75	4.14	4.16	110	111	70.0-130			0.482	25
trans-1,3-Dichloropropene	3.75	3.56	3.56	94.9	94.9	70.0-130			0.000	25
1,4-Dioxane	3.75	3.14	3.12	83.7	83.2	70.0-140			0.639	25
Ethanol	3.75	3.46	3.57	92.3	95.2	55.0-148			3.13	25
Ethylbenzene	3.75	3.77	3.79	101	101	70.0-130			0.529	25
4-Ethyltoluene	3.75	3.89	3.92	104	105	70.0-130			0.768	25
Trichlorofluoromethane	3.75	4.18	4.14	111	110	70.0-130			0.962	25
Dichlorodifluoromethane	3.75	3.78	3.82	101	102	64.0-139			1.05	25
1,1,2-Trichlorotrifluoroethane	3.75	3.91	3.91	104	104	70.0-130			0.000	25
1,2-Dichlorotetrafluoroethane	3.75	3.99	4.04	106	108	70.0-130			1.25	25
Heptane	3.75	3.84	3.88	102	103	70.0-130			1.04	25
Hexachloro-1,3-butadiene	3.75	3.93	3.90	105	104	70.0-151			0.766	25
n-Hexane	3.75	3.74	3.80	99.7	101	70.0-130			1.59	25
Isopropylbenzene	3.75	3.70	3.70	98.7	98.7	70.0-130			0.000	25
Methylene Chloride	3.75	3.85	3.83	103	102	70.0-130			0.521	25
Methyl Butyl Ketone	3.75	3.37	3.35	89.9	89.3	70.0-149			0.595	25
2-Butanone (MEK)	3.75	3.54	3.56	94.4	94.9	70.0-130			0.563	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3961359-1 08/15/23 09:35 • (LCSD) R3961359-2 08/15/23 10:17

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	3.61	3.60	96.3	96.0	70.0-139			0.277	25
Methyl methacrylate	3.75	3.50	3.53	93.3	94.1	70.0-130			0.853	25
MTBE	3.75	3.88	3.86	103	103	70.0-130			0.517	25
Naphthalene	3.75	3.92	3.92	105	105	70.0-159			0.000	25
2-Propanol	3.75	3.78	3.77	101	101	70.0-139			0.265	25
Propene	3.75	3.62	3.64	96.5	97.1	64.0-144			0.551	25
Styrene	3.75	3.82	3.83	102	102	70.0-130			0.261	25
1,1,2,2-Tetrachloroethane	3.75	3.68	3.63	98.1	96.8	70.0-130			1.37	25
Tetrachloroethylene	3.75	3.76	3.87	100	103	70.0-130			2.88	25
Tetrahydrofuran	3.75	3.81	3.85	102	103	70.0-137			1.04	25
Toluene	3.75	3.72	3.71	99.2	98.9	70.0-130			0.269	25
1,2,4-Trichlorobenzene	3.75	4.08	4.14	109	110	70.0-160			1.46	25
1,1,1-Trichloroethane	3.75	4.13	4.16	110	111	70.0-130			0.724	25
1,1,2-Trichloroethane	3.75	3.84	3.86	102	103	70.0-130			0.519	25
Trichloroethylene	3.75	3.73	3.78	99.5	101	70.0-130			1.33	25
1,2,4-Trimethylbenzene	3.75	3.86	3.86	103	103	70.0-130			0.000	25
1,3,5-Trimethylbenzene	3.75	3.83	3.82	102	102	70.0-130			0.261	25
2,2,4-Trimethylpentane	3.75	3.76	3.74	100	99.7	70.0-130			0.533	25
Vinyl chloride	3.75	3.94	3.86	105	103	70.0-130			2.05	25
Vinyl Bromide	3.75	3.84	3.83	102	102	70.0-130			0.261	25
Vinyl acetate	3.75	2.94	3.03	78.4	80.8	70.0-130			3.02	25
Xylenes, Total	11.3	11.2	11.1	99.1	98.2	70.0-130			0.897	25
m&p-Xylene	7.50	7.51	7.44	100	99.2	70.0-130			0.936	25
o-Xylene	3.75	3.67	3.68	97.9	98.1	70.0-130			0.272	25
(S) 1,4-Bromofluorobenzene				*98.3*	*98.4*	*60.0-140*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
PES Environmental, Inc.- WA

2101 Fourth Ave., Suite 1310
Seattle, WA 98121

Billing Information:
Attn: Accounts Payable
2101 4th Avenue, Suite 1310
Seattle, WA 98121

Report To:
Bill Haldeman

Email To:
Rachel.McLaughlin@nv5.com;bill.haldeman@nv5.com

Project Description: **American Linen**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **206-529-3980**

Client Project #

Lab Project #
PESENVSWA-ALP

Collected by (print): osmin m.

Site/Facility ID #

P.O. #
443018-1413001.05.601

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Three Day
___ Next Day ___ Five Day
___ Two Day
STD

Date Results Needed

Sample ID	Can #	Flow Cont. #	Collection Date	Collection Time	Canister Pressure/Vacuum Initial	Canister Pressure/Vacuum Final	TO-15 Summa	Analysis	Analysis	Analysis	Rem./Contaminant	Sample # (lab only)
~~SV01~~ SV01-080923	7164	15558	8/9/23	1008	-28	-5	X					-01
SV-910-080923	8872	11890	8/9/23	900	-28.5	-3.5	X					-02
SV-09-080923	21039	15417	8/9/23	1134	-30	-4	X					-03
SV-08-080923	22007	22601	8/9/23	1302	-28	-4	X					-04
							X					
							X					
							X					
							X					
							X					
							X					

Sample Receipt Checklist
COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N
If Applicable
VOA Zero Headspace: Y N
Pres.Correct/Check: Y N

Remarks:

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1045594
1127

Acctnum: **PESENVSWA**
Template: **T234544**
Prelogin: **P1013350**
PM: **546 - Jared Starkey**
PB:
Shipped Via: **FedEx Ground**

Relinquished by : (Signature)	Date:	Time:
	8/11/23	1230
Relinquished by : (Signature)	Date:	Time:
Relinquished by : (Signature)	Date:	Time:

Samples returned via: __ UPS __ FedEx __ Courier _____

Received by: (Signature)	Date:	Time:
Received by: (Signature)	Date: 8/12	Time: 0900
Received for lab by: (Signature)	Date:	Time:

Tracking #

Hold #

Condition: (lab use only)

COC Seal Intact: ___Y ___N ___NA

NCF:

ANALYTICAL REPORT

August 18, 2023

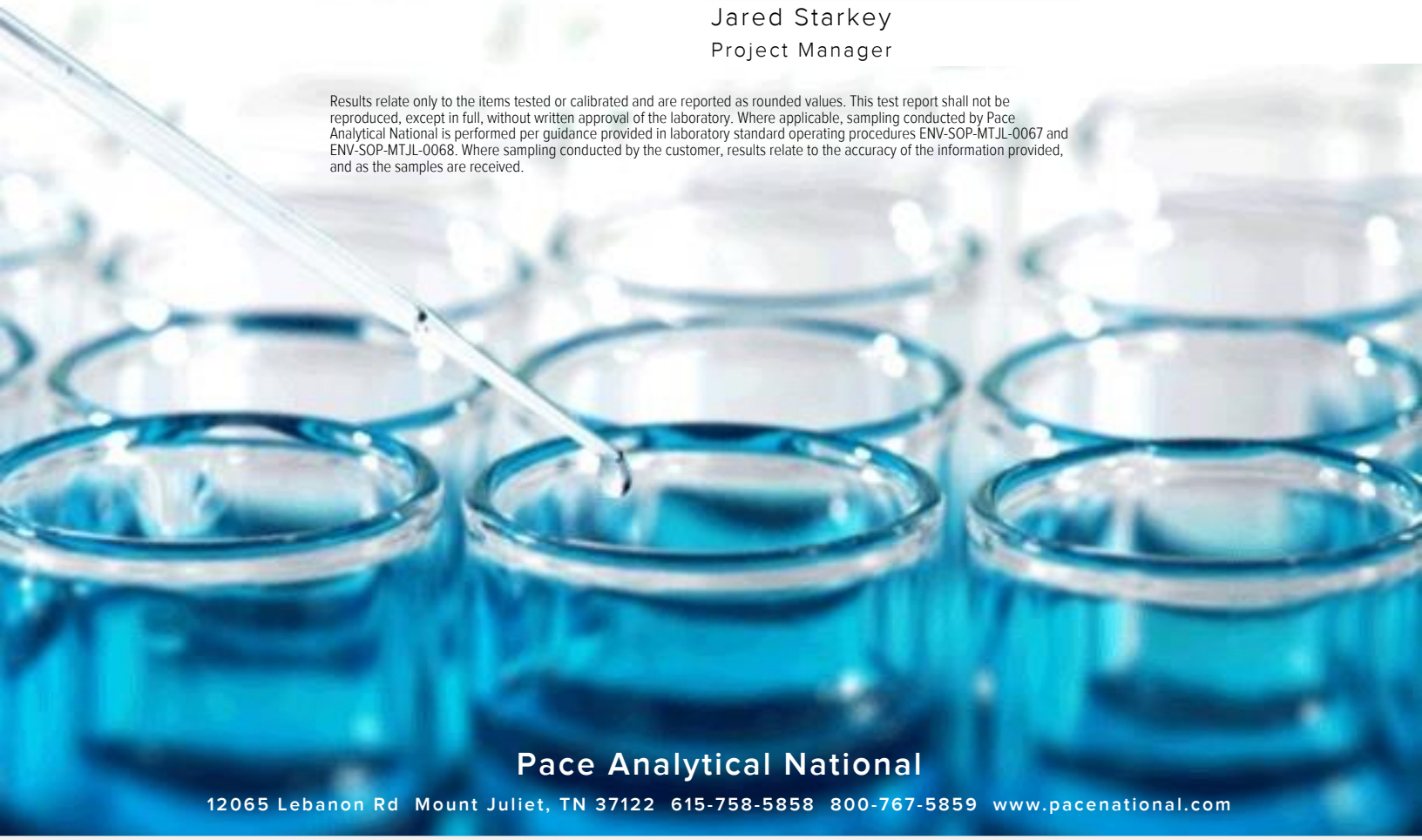
PES Environmental, Inc.- WA

Sample Delivery Group:	L1645619
Samples Received:	08/12/2023
Project Number:	
Description:	American Linen

Report To: Bill Haldeman
2101 Fourth Ave., Suite 1310
Seattle, WA 98121

Entire Report Reviewed By:

Jared Starkey
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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SV-21-081123 L1645619-01 Air

Collected by: Osmin M.
Collected date/time: 08/11/23 09:27
Received date/time: 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2114251	1	08/15/23 21:18	08/15/23 21:18	GH	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jared Starkey
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	3.52	8.36		1	WG2114251
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2114251
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2114251
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2114251
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2114251
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2114251
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2114251
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2114251
Carbon disulfide	75-15-0	76.10	0.200	0.622	11.6	36.1		1	WG2114251
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2114251
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2114251
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2114251
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2114251
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2114251
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2114251
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2114251
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2114251
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2114251
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2114251
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2114251
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2114251
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2114251
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2114251
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2114251
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2114251
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2114251
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2114251
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2114251
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2114251
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2114251
Ethanol	64-17-5	46.10	2.50	4.71	3.90	7.35	B	1	WG2114251
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2114251
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2114251
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.994	5.59		1	WG2114251
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.514	2.54		1	WG2114251
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2114251
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2114251
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2114251
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2114251
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2114251
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2114251
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.259	0.899		1	WG2114251
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2114251
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2114251
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2114251
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2114251
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2114251
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2114251
2-Propanol	67-63-0	60.10	1.25	3.07	1.88	4.62		1	WG2114251
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2114251
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2114251
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2114251
Tetrachloroethylene	127-18-4	166	0.200	1.36	8.59	58.3		1	WG2114251
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2114251
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2114251
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2114251

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	1.46	7.94		1	WG2114251
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2114251
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2114251
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2114251
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2114251
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2114251
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2114251
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2114251
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2114251
Xylenes, Total	1330-20-7	106.16	0.600	2.61	ND	ND		1	WG2114251
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2114251
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2114251
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.2*				WG2114251

Method Blank (MB)

(MB) R3962210-3 08/15/23 11:13

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Allyl chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethanol	0.651	J	0.265	2.50
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
n-Hexane	U		0.206	0.630

Method Blank (MB)

(MB) R3962210-3 08/15/23 11:13

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Isopropylbenzene	U		0.0777	0.200
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	U		0.0932	1.25
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
Xylenes, Total	U		0.135	0.600
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
(S) 1,4-Bromofluorobenzene	*96.9*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3962210-1 08/15/23 08:45 • (LCSD) R3962210-2 08/15/23 09:23

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	3.72	3.76	99.2	100	70.0-130			1.07	25
Allyl chloride	3.75	4.14	4.13	110	110	70.0-130			0.242	25
Benzene	3.75	4.02	4.05	107	108	70.0-130			0.743	25
Benzyl Chloride	3.75	4.07	4.05	109	108	70.0-152			0.493	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3962210-1 08/15/23 08:45 • (LCSD) R3962210-2 08/15/23 09:23

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	3.75	3.96	4.03	106	107	70.0-130			1.75	25
Bromoform	3.75	3.66	3.63	97.6	96.8	70.0-130			0.823	25
Bromomethane	3.75	4.01	3.88	107	103	70.0-130			3.30	25
1,3-Butadiene	3.75	4.14	4.07	110	109	70.0-130			1.71	25
Carbon disulfide	3.75	4.03	4.03	107	107	70.0-130			0.000	25
Carbon tetrachloride	3.75	3.84	3.87	102	103	70.0-130			0.778	25
Chlorobenzene	3.75	3.88	3.92	103	105	70.0-130			1.03	25
Chloroethane	3.75	4.14	3.88	110	103	70.0-130			6.48	25
Chloroform	3.75	4.02	3.99	107	106	70.0-130			0.749	25
Chloromethane	3.75	4.11	4.23	110	113	70.0-130			2.88	25
2-Chlorotoluene	3.75	3.88	3.91	103	104	70.0-130			0.770	25
Cyclohexane	3.75	3.87	3.92	103	105	70.0-130			1.28	25
Dibromochloromethane	3.75	3.85	3.87	103	103	70.0-130			0.518	25
1,2-Dibromoethane	3.75	3.85	3.89	103	104	70.0-130			1.03	25
1,2-Dichlorobenzene	3.75	3.76	3.79	100	101	70.0-130			0.795	25
1,3-Dichlorobenzene	3.75	3.77	3.82	101	102	70.0-130			1.32	25
1,4-Dichlorobenzene	3.75	3.89	3.94	104	105	70.0-130			1.28	25
1,2-Dichloroethane	3.75	4.05	4.09	108	109	70.0-130			0.983	25
1,1-Dichloroethane	3.75	4.00	4.03	107	107	70.0-130			0.747	25
1,1-Dichloroethene	3.75	4.02	4.08	107	109	70.0-130			1.48	25
cis-1,2-Dichloroethene	3.75	3.53	3.67	94.1	97.9	70.0-130			3.89	25
trans-1,2-Dichloroethene	3.75	4.01	4.04	107	108	70.0-130			0.745	25
1,2-Dichloropropane	3.75	4.01	4.07	107	109	70.0-130			1.49	25
cis-1,3-Dichloropropene	3.75	3.96	3.99	106	106	70.0-130			0.755	25
trans-1,3-Dichloropropene	3.75	3.96	3.98	106	106	70.0-130			0.504	25
1,4-Dioxane	3.75	3.44	3.72	91.7	99.2	70.0-140			7.82	25
Ethanol	3.75	4.10	4.41	109	118	55.0-148			7.29	25
Ethylbenzene	3.75	3.82	3.87	102	103	70.0-130			1.30	25
4-Ethyltoluene	3.75	3.96	3.97	106	106	70.0-130			0.252	25
Trichlorofluoromethane	3.75	4.11	4.04	110	108	70.0-130			1.72	25
Dichlorodifluoromethane	3.75	4.05	4.11	108	110	64.0-139			1.47	25
1,1,2-Trichlorotrifluoroethane	3.75	3.87	3.85	103	103	70.0-130			0.518	25
1,2-Dichlorotetrafluoroethane	3.75	4.05	4.07	108	109	70.0-130			0.493	25
Heptane	3.75	4.22	4.27	113	114	70.0-130			1.18	25
Hexachloro-1,3-butadiene	3.75	3.68	3.71	98.1	98.9	70.0-151			0.812	25
n-Hexane	3.75	3.97	3.99	106	106	70.0-130			0.503	25
Isopropylbenzene	3.75	3.82	3.87	102	103	70.0-130			1.30	25
Methylene Chloride	3.75	3.99	4.01	106	107	70.0-130			0.500	25
Methyl Butyl Ketone	3.75	4.59	4.59	122	122	70.0-149			0.000	25
2-Butanone (MEK)	3.75	3.84	4.10	102	109	70.0-130			6.55	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3962210-1 08/15/23 08:45 • (LCSD) R3962210-2 08/15/23 09:23

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	4.21	4.31	112	115	70.0-139			2.35	25
Methyl methacrylate	3.75	4.24	4.31	113	115	70.0-130			1.64	25
MTBE	3.75	3.88	3.90	103	104	70.0-130			0.514	25
Naphthalene	3.75	4.13	4.13	110	110	70.0-159			0.000	25
2-Propanol	3.75	3.78	4.13	101	110	70.0-139			8.85	25
Propene	3.75	4.13	4.27	110	114	64.0-144			3.33	25
Styrene	3.75	3.95	4.00	105	107	70.0-130			1.26	25
1,1,2,2-Tetrachloroethane	3.75	3.91	3.95	104	105	70.0-130			1.02	25
Tetrachloroethylene	3.75	3.64	3.69	97.1	98.4	70.0-130			1.36	25
Tetrahydrofuran	3.75	4.28	4.27	114	114	70.0-137			0.234	25
Toluene	3.75	3.89	3.94	104	105	70.0-130			1.28	25
1,2,4-Trichlorobenzene	3.75	3.89	3.90	104	104	70.0-160			0.257	25
1,1,1-Trichloroethane	3.75	3.96	4.00	106	107	70.0-130			1.01	25
1,1,2-Trichloroethane	3.75	3.88	3.90	103	104	70.0-130			0.514	25
Trichloroethylene	3.75	3.85	3.86	103	103	70.0-130			0.259	25
1,2,4-Trimethylbenzene	3.75	3.94	4.01	105	107	70.0-130			1.76	25
1,3,5-Trimethylbenzene	3.75	3.96	4.08	106	109	70.0-130			2.99	25
2,2,4-Trimethylpentane	3.75	4.11	4.14	110	110	70.0-130			0.727	25
Vinyl chloride	3.75	4.06	4.08	108	109	70.0-130			0.491	25
Vinyl Bromide	3.75	4.05	3.87	108	103	70.0-130			4.55	25
Vinyl acetate	3.75	3.65	3.70	97.3	98.7	70.0-130			1.36	25
Xylenes, Total	11.3	11.8	11.9	104	105	70.0-130			0.844	25
m&p-Xylene	7.50	7.94	8.05	106	107	70.0-130			1.38	25
o-Xylene	3.75	3.83	3.90	102	104	70.0-130			1.81	25
(S) 1,4-Bromofluorobenzene				*97.1*	*97.7*	*60.0-140*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Pace Analytical
www.pacelabs.com

AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1124

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company:	Report To:	Attention:
Address:	Copy To:	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name:	Pace Project Manager/Sales Rep.
Requested Due Date/TAT:	Project Number:	Pace Profile #:

Page: of

Program
☐ UST ☐ Superfund ☐ Emissions ☐ Clean Air Act
☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☐ Other

Location of Sampling by State _____

Reporting Units
ug/m³ ___ mg/m³ ___
PPBV ___ PPMV ___
Other ___

Report Level II.___ III.___ IV.___ Other____

Method: PM10 | 3C- Fixed Gas (%) | TO-3 | TO-3M (Methane) | TO-4 (PCBs) | TO-13 (PAH) | TO-14 | TO-15 Summa | TO15 Short List

ITEM #	'Section D Required Client Information AIR SAMPLE ID Sample IDs MUST BE UNIQUE	MEDIA CODE	PID Reading (Client only)	COLLECTED COMPOSITE START END/GRAB DATE	TIME	COMPOSITE END/GRAB DATE	TIME	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Pace Lab ID
1	SV-21-08 1123			8/11/23	921	8/11/23	927	-29	-4	22714	12658	11645619-01
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

Sample Receipt Checklist

		If Applicable	
COC Seal Present/Intact:	Y N	VOA Zero Headspace:	Y N
COC Signed/Accurate:	Y N	Pres.Correct/Check:	Y N
Bottles arrive intact:	Y N		
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

Comments :

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	8/11/23				
			Glenn Wilson	8/12	0900

SAMPLE CONDITIONS

Temp in °C	Y/N	Y/N	Y/N
Received on Ice	Y/N	Y/N	Y/N
Custody Sealed Cooler	Y/N	Y/N	Y/N
Samples Intact	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Osmin M.

SIGNATURE of SAMPLER:

DATE Signed (MM / DD / YY): 8/11/23

ANALYTICAL REPORT

August 24, 2023

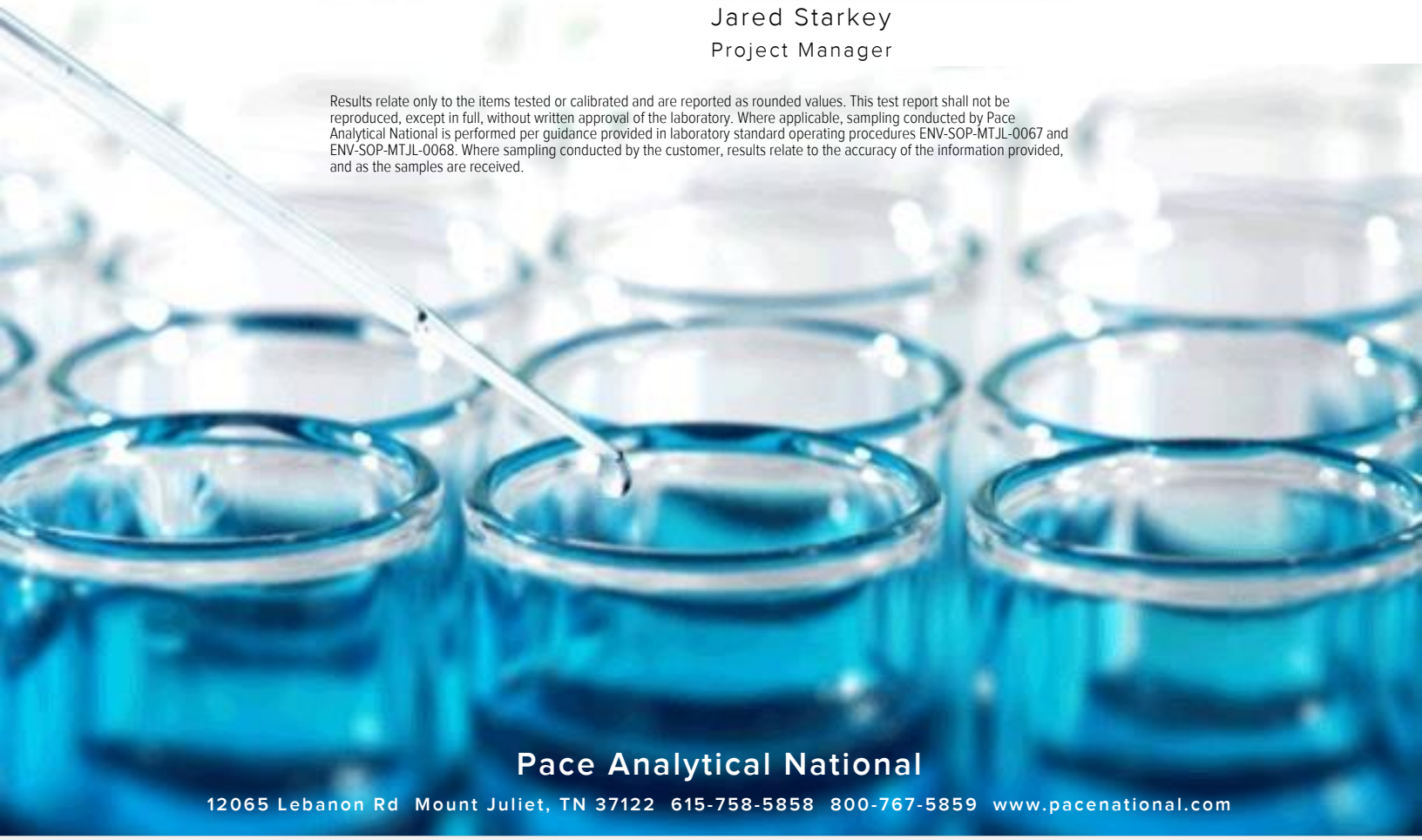
PES Environmental, Inc.- WA

Sample Delivery Group:	L1646504
Samples Received:	08/16/2023
Project Number:	1413001.10.603.04
Description:	American Linen (SDOT Mercer Parcels)

Report To: Bill Haldeman
2101 Fourth Ave., Suite 1310
Seattle, WA 98121

Entire Report Reviewed By:

Jared Starkey
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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MW-346-081523 L1646504-01 GW

Collected by | Collected date/time 08/15/23 08:05 | Received date/time 08/16/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2115051	1	08/16/23 20:51	08/16/23 20:51	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2117713	1	08/21/23 17:34	08/21/23 17:34	SJF	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2118514	1	08/22/23 16:25	08/22/23 16:25	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115647	1	08/17/23 03:06	08/17/23 03:06	ACG	Mt. Juliet, TN

MW-992-081523 L1646504-02 GW

Collected by | Collected date/time 08/15/23 09:00 | Received date/time 08/16/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2115051	1	08/16/23 21:21	08/16/23 21:21	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2117713	1	08/21/23 17:51	08/21/23 17:51	SJF	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2118514	1	08/22/23 16:27	08/22/23 16:27	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115647	1	08/17/23 02:47	08/17/23 02:47	ACG	Mt. Juliet, TN

MW-347-081523 L1646504-03 GW

Collected by | Collected date/time 08/15/23 09:33 | Received date/time 08/16/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2115051	1	08/16/23 21:51	08/16/23 21:51	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2117713	1	08/21/23 18:08	08/21/23 18:08	SJF	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2118962	1	08/23/23 14:23	08/23/23 14:23	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115647	1	08/17/23 02:28	08/17/23 02:28	ACG	Mt. Juliet, TN

MW-348-081523 L1646504-04 GW

Collected by | Collected date/time 08/15/23 10:50 | Received date/time 08/16/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2115051	1	08/16/23 22:36	08/16/23 22:36	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2117713	1	08/21/23 19:27	08/21/23 19:27	SJF	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2118962	1	08/23/23 14:28	08/23/23 14:28	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2119823	10	08/24/23 11:44	08/24/23 11:44	BAW	Mt. Juliet, TN

MW-349-081523 L1646504-05 GW

Collected by | Collected date/time 08/15/23 12:21 | Received date/time 08/16/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2115051	1	08/16/23 22:51	08/16/23 22:51	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2117713	1	08/21/23 19:46	08/21/23 19:46	SJF	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2118962	1	08/23/23 14:35	08/23/23 14:35	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2119823	10	08/24/23 11:50	08/24/23 11:50	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115647	1	08/17/23 02:09	08/17/23 02:09	ACG	Mt. Juliet, TN

MW-350-081523 L1646504-06 GW

Collected by | Collected date/time 08/15/23 13:30 | Received date/time 08/16/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2115051	1	08/16/23 23:06	08/16/23 23:06	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2117713	1	08/21/23 20:54	08/21/23 20:54	SJF	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2118962	1	08/23/23 14:41	08/23/23 14:41	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115647	1	08/17/23 01:50	08/17/23 01:50	ACG	Mt. Juliet, TN

EQ-081523 L1646504-07 GW

Collected by	Collected date/time	Received date/time
	08/15/23 14:50	08/16/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2115051	1	08/16/23 23:21	08/16/23 23:21	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2117713	1	08/21/23 21:13	08/21/23 21:13	SJF	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2118962	1	08/23/23 14:45	08/23/23 14:45	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115647	1	08/17/23 01:32	08/17/23 01:32	ACG	Mt. Juliet, TN

TB-081523 L1646504-08 GW

Collected by	Collected date/time	Received date/time
	08/15/23 15:05	08/16/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115647	1	08/17/23 01:13	08/17/23 01:13	ACG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jared Starkey
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	35000		379	1000	1	08/16/2023 20:51	WG2115051
Nitrate	U		48.0	100	1	08/16/2023 20:51	WG2115051
Sulfate	73400		594	5000	1	08/16/2023 20:51	WG2115051

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1540		102	1000	1	08/21/2023 17:34	WG2117713

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	82.2		0.287	0.678	1	08/22/2023 16:25	WG2118514
Ethane	U		0.296	1.29	1	08/22/2023 16:25	WG2118514
Ethene	5.05		0.422	1.27	1	08/22/2023 16:25	WG2118514

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.10		0.548	1.00	1	08/17/2023 03:06	WG2115647
Acrylonitrile	U		0.0760	0.500	1	08/17/2023 03:06	WG2115647
Benzene	U		0.0160	0.0400	1	08/17/2023 03:06	WG2115647
Bromobenzene	U	J4	0.0420	0.500	1	08/17/2023 03:06	WG2115647
Bromochloromethane	U		0.0452	0.200	1	08/17/2023 03:06	WG2115647
Bromodichloromethane	U		0.0315	0.100	1	08/17/2023 03:06	WG2115647
Bromoform	U		0.239	1.00	1	08/17/2023 03:06	WG2115647
Bromomethane	U		0.148	0.500	1	08/17/2023 03:06	WG2115647
n-Butylbenzene	U		0.153	0.500	1	08/17/2023 03:06	WG2115647
sec-Butylbenzene	U		0.101	0.500	1	08/17/2023 03:06	WG2115647
tert-Butylbenzene	U		0.0620	0.200	1	08/17/2023 03:06	WG2115647
Carbon disulfide	U		0.162	0.500	1	08/17/2023 03:06	WG2115647
Carbon tetrachloride	U		0.0432	0.200	1	08/17/2023 03:06	WG2115647
Chlorobenzene	U		0.0229	0.100	1	08/17/2023 03:06	WG2115647
Chlorodibromomethane	U		0.0180	0.100	1	08/17/2023 03:06	WG2115647
Chloroethane	U		0.0432	0.200	1	08/17/2023 03:06	WG2115647
Chloroform	U		0.0166	0.100	1	08/17/2023 03:06	WG2115647
Chloromethane	U		0.0556	0.500	1	08/17/2023 03:06	WG2115647
2-Chlorotoluene	U		0.0368	0.100	1	08/17/2023 03:06	WG2115647
4-Chlorotoluene	U		0.0452	0.200	1	08/17/2023 03:06	WG2115647
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/17/2023 03:06	WG2115647
1,2-Dibromoethane	U		0.0210	0.100	1	08/17/2023 03:06	WG2115647
Dibromomethane	U		0.0400	0.200	1	08/17/2023 03:06	WG2115647
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/17/2023 03:06	WG2115647
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/17/2023 03:06	WG2115647
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/17/2023 03:06	WG2115647
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/17/2023 03:06	WG2115647
Dichlorodifluoromethane	U		0.0327	0.100	1	08/17/2023 03:06	WG2115647
1,1-Dichloroethane	U		0.0230	0.100	1	08/17/2023 03:06	WG2115647
1,2-Dichloroethane	U		0.0190	0.100	1	08/17/2023 03:06	WG2115647
1,1-Dichloroethene	U		0.0200	0.100	1	08/17/2023 03:06	WG2115647
cis-1,2-Dichloroethene	2.31		0.0276	0.100	1	08/17/2023 03:06	WG2115647
trans-1,2-Dichloroethene	U		0.0572	0.200	1	08/17/2023 03:06	WG2115647
1,2-Dichloropropane	U		0.0508	0.200	1	08/17/2023 03:06	WG2115647
1,1-Dichloropropene	U		0.0280	0.100	1	08/17/2023 03:06	WG2115647

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,3-Dichloropropane	U		0.0700	0.200	1	08/17/2023 03:06	WG2115647
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/17/2023 03:06	WG2115647
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/17/2023 03:06	WG2115647
2,2-Dichloropropane	U		0.0317	0.100	1	08/17/2023 03:06	WG2115647
Di-isopropyl ether	U		0.0140	0.0400	1	08/17/2023 03:06	WG2115647
Ethylbenzene	0.0800	J	0.0212	0.100	1	08/17/2023 03:06	WG2115647
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/17/2023 03:06	WG2115647
2-Hexanone	U		0.400	1.00	1	08/17/2023 03:06	WG2115647
n-Hexane	U		0.0424	0.200	1	08/17/2023 03:06	WG2115647
Iodomethane	U		0.242	0.500	1	08/17/2023 03:06	WG2115647
Isopropylbenzene	U		0.0345	0.100	1	08/17/2023 03:06	WG2115647
p-Isopropyltoluene	U		0.0932	0.200	1	08/17/2023 03:06	WG2115647
2-Butanone (MEK)	U		0.500	1.00	1	08/17/2023 03:06	WG2115647
Methylene Chloride	U		0.265	1.00	1	08/17/2023 03:06	WG2115647
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/17/2023 03:06	WG2115647
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/17/2023 03:06	WG2115647
Naphthalene	U		0.124	0.500	1	08/17/2023 03:06	WG2115647
n-Propylbenzene	U		0.0472	0.200	1	08/17/2023 03:06	WG2115647
Styrene	U		0.109	0.500	1	08/17/2023 03:06	WG2115647
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/17/2023 03:06	WG2115647
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/17/2023 03:06	WG2115647
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/17/2023 03:06	WG2115647
Tetrachloroethene	U		0.0280	0.100	1	08/17/2023 03:06	WG2115647
Toluene	0.336		0.0500	0.200	1	08/17/2023 03:06	WG2115647
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/17/2023 03:06	WG2115647
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/17/2023 03:06	WG2115647
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/17/2023 03:06	WG2115647
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/17/2023 03:06	WG2115647
Trichloroethene	0.504		0.0160	0.0400	1	08/17/2023 03:06	WG2115647
Trichlorofluoromethane	U		0.0200	0.100	1	08/17/2023 03:06	WG2115647
1,2,3-Trichloropropane	U		0.204	0.500	1	08/17/2023 03:06	WG2115647
1,2,4-Trimethylbenzene	0.119	J	0.0464	0.200	1	08/17/2023 03:06	WG2115647
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/17/2023 03:06	WG2115647
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/17/2023 03:06	WG2115647
Vinyl acetate	U	C3	0.141	0.500	1	08/17/2023 03:06	WG2115647
Vinyl chloride	2.11		0.0273	0.100	1	08/17/2023 03:06	WG2115647
Xylenes, Total	0.420		0.191	0.260	1	08/17/2023 03:06	WG2115647
(S) Toluene-d8	*112*			*75.0-131*		*08/17/2023 03:06*	WG2115647
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*08/17/2023 03:06*	WG2115647
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*		*08/17/2023 03:06*	WG2115647

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	34400		379	1000	1	08/16/2023 21:21	WG2115051
Nitrate	U		48.0	100	1	08/16/2023 21:21	WG2115051
Sulfate	71000		594	5000	1	08/16/2023 21:21	WG2115051

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1550		102	1000	1	08/21/2023 17:51	WG2117713

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	83.9		0.287	0.678	1	08/22/2023 16:27	WG2118514
Ethane	1.04	J	0.296	1.29	1	08/22/2023 16:27	WG2118514
Ethene	7.24		0.422	1.27	1	08/22/2023 16:27	WG2118514

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.73		0.548	1.00	1	08/17/2023 02:47	WG2115647
Acrylonitrile	U		0.0760	0.500	1	08/17/2023 02:47	WG2115647
Benzene	U		0.0160	0.0400	1	08/17/2023 02:47	WG2115647
Bromobenzene	U	J4	0.0420	0.500	1	08/17/2023 02:47	WG2115647
Bromochloromethane	U		0.0452	0.200	1	08/17/2023 02:47	WG2115647
Bromodichloromethane	U		0.0315	0.100	1	08/17/2023 02:47	WG2115647
Bromoform	U		0.239	1.00	1	08/17/2023 02:47	WG2115647
Bromomethane	U		0.148	0.500	1	08/17/2023 02:47	WG2115647
n-Butylbenzene	U		0.153	0.500	1	08/17/2023 02:47	WG2115647
sec-Butylbenzene	U		0.101	0.500	1	08/17/2023 02:47	WG2115647
tert-Butylbenzene	U		0.0620	0.200	1	08/17/2023 02:47	WG2115647
Carbon disulfide	U		0.162	0.500	1	08/17/2023 02:47	WG2115647
Carbon tetrachloride	U		0.0432	0.200	1	08/17/2023 02:47	WG2115647
Chlorobenzene	U		0.0229	0.100	1	08/17/2023 02:47	WG2115647
Chlorodibromomethane	U		0.0180	0.100	1	08/17/2023 02:47	WG2115647
Chloroethane	U		0.0432	0.200	1	08/17/2023 02:47	WG2115647
Chloroform	U		0.0166	0.100	1	08/17/2023 02:47	WG2115647
Chloromethane	U		0.0556	0.500	1	08/17/2023 02:47	WG2115647
2-Chlorotoluene	U		0.0368	0.100	1	08/17/2023 02:47	WG2115647
4-Chlorotoluene	U		0.0452	0.200	1	08/17/2023 02:47	WG2115647
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/17/2023 02:47	WG2115647
1,2-Dibromoethane	U		0.0210	0.100	1	08/17/2023 02:47	WG2115647
Dibromomethane	U		0.0400	0.200	1	08/17/2023 02:47	WG2115647
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/17/2023 02:47	WG2115647
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/17/2023 02:47	WG2115647
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/17/2023 02:47	WG2115647
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/17/2023 02:47	WG2115647
Dichlorodifluoromethane	U		0.0327	0.100	1	08/17/2023 02:47	WG2115647
1,1-Dichloroethane	U		0.0230	0.100	1	08/17/2023 02:47	WG2115647
1,2-Dichloroethane	U		0.0190	0.100	1	08/17/2023 02:47	WG2115647
1,1-Dichloroethene	U		0.0200	0.100	1	08/17/2023 02:47	WG2115647
cis-1,2-Dichloroethene	2.36		0.0276	0.100	1	08/17/2023 02:47	WG2115647
trans-1,2-Dichloroethene	U		0.0572	0.200	1	08/17/2023 02:47	WG2115647
1,2-Dichloropropane	U		0.0508	0.200	1	08/17/2023 02:47	WG2115647
1,1-Dichloropropene	U		0.0280	0.100	1	08/17/2023 02:47	WG2115647

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,3-Dichloropropane	U		0.0700	0.200	1	08/17/2023 02:47	WG2115647
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/17/2023 02:47	WG2115647
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/17/2023 02:47	WG2115647
2,2-Dichloropropane	U		0.0317	0.100	1	08/17/2023 02:47	WG2115647
Di-isopropyl ether	U		0.0140	0.0400	1	08/17/2023 02:47	WG2115647
Ethylbenzene	0.0520	J	0.0212	0.100	1	08/17/2023 02:47	WG2115647
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/17/2023 02:47	WG2115647
2-Hexanone	U		0.400	1.00	1	08/17/2023 02:47	WG2115647
n-Hexane	U		0.0424	0.200	1	08/17/2023 02:47	WG2115647
Iodomethane	U		0.242	0.500	1	08/17/2023 02:47	WG2115647
Isopropylbenzene	U		0.0345	0.100	1	08/17/2023 02:47	WG2115647
p-Isopropyltoluene	U		0.0932	0.200	1	08/17/2023 02:47	WG2115647
2-Butanone (MEK)	U		0.500	1.00	1	08/17/2023 02:47	WG2115647
Methylene Chloride	U		0.265	1.00	1	08/17/2023 02:47	WG2115647
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/17/2023 02:47	WG2115647
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/17/2023 02:47	WG2115647
Naphthalene	U		0.124	0.500	1	08/17/2023 02:47	WG2115647
n-Propylbenzene	U		0.0472	0.200	1	08/17/2023 02:47	WG2115647
Styrene	U		0.109	0.500	1	08/17/2023 02:47	WG2115647
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/17/2023 02:47	WG2115647
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/17/2023 02:47	WG2115647
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/17/2023 02:47	WG2115647
Tetrachloroethene	0.0440	J	0.0280	0.100	1	08/17/2023 02:47	WG2115647
Toluene	0.276		0.0500	0.200	1	08/17/2023 02:47	WG2115647
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/17/2023 02:47	WG2115647
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/17/2023 02:47	WG2115647
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/17/2023 02:47	WG2115647
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/17/2023 02:47	WG2115647
Trichloroethene	0.574		0.0160	0.0400	1	08/17/2023 02:47	WG2115647
Trichlorofluoromethane	U		0.0200	0.100	1	08/17/2023 02:47	WG2115647
1,2,3-Trichloropropane	U		0.204	0.500	1	08/17/2023 02:47	WG2115647
1,2,4-Trimethylbenzene	0.103	J	0.0464	0.200	1	08/17/2023 02:47	WG2115647
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/17/2023 02:47	WG2115647
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/17/2023 02:47	WG2115647
Vinyl acetate	U	C3	0.141	0.500	1	08/17/2023 02:47	WG2115647
Vinyl chloride	1.61		0.0273	0.100	1	08/17/2023 02:47	WG2115647
Xylenes, Total	0.372		0.191	0.260	1	08/17/2023 02:47	WG2115647
(S) Toluene-d8	*112*			*75.0-131*		*08/17/2023 02:47*	WG2115647
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*08/17/2023 02:47*	WG2115647
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*		*08/17/2023 02:47*	WG2115647

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	31700		379	1000	1	08/16/2023 21:51	WG2115051
Nitrate	U		48.0	100	1	08/16/2023 21:51	WG2115051
Sulfate	31300		594	5000	1	08/16/2023 21:51	WG2115051

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1640		102	1000	1	08/21/2023 18:08	WG2117713

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	2090		0.287	0.678	1	08/23/2023 14:23	WG2118962
Ethane	2.95		0.296	1.29	1	08/23/2023 14:23	WG2118962
Ethene	11.3		0.422	1.27	1	08/23/2023 14:23	WG2118962

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	6.69		0.548	1.00	1	08/17/2023 02:28	WG2115647
Acrylonitrile	U		0.0760	0.500	1	08/17/2023 02:28	WG2115647
Benzene	U		0.0160	0.0400	1	08/17/2023 02:28	WG2115647
Bromobenzene	U	J4	0.0420	0.500	1	08/17/2023 02:28	WG2115647
Bromochloromethane	U		0.0452	0.200	1	08/17/2023 02:28	WG2115647
Bromodichloromethane	U		0.0315	0.100	1	08/17/2023 02:28	WG2115647
Bromoform	U		0.239	1.00	1	08/17/2023 02:28	WG2115647
Bromomethane	U		0.148	0.500	1	08/17/2023 02:28	WG2115647
n-Butylbenzene	U		0.153	0.500	1	08/17/2023 02:28	WG2115647
sec-Butylbenzene	U		0.101	0.500	1	08/17/2023 02:28	WG2115647
tert-Butylbenzene	U		0.0620	0.200	1	08/17/2023 02:28	WG2115647
Carbon disulfide	0.231	J	0.162	0.500	1	08/17/2023 02:28	WG2115647
Carbon tetrachloride	U		0.0432	0.200	1	08/17/2023 02:28	WG2115647
Chlorobenzene	U		0.0229	0.100	1	08/17/2023 02:28	WG2115647
Chlorodibromomethane	U		0.0180	0.100	1	08/17/2023 02:28	WG2115647
Chloroethane	U		0.0432	0.200	1	08/17/2023 02:28	WG2115647
Chloroform	U		0.0166	0.100	1	08/17/2023 02:28	WG2115647
Chloromethane	U		0.0556	0.500	1	08/17/2023 02:28	WG2115647
2-Chlorotoluene	U		0.0368	0.100	1	08/17/2023 02:28	WG2115647
4-Chlorotoluene	U		0.0452	0.200	1	08/17/2023 02:28	WG2115647
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/17/2023 02:28	WG2115647
1,2-Dibromoethane	U		0.0210	0.100	1	08/17/2023 02:28	WG2115647
Dibromomethane	U		0.0400	0.200	1	08/17/2023 02:28	WG2115647
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/17/2023 02:28	WG2115647
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/17/2023 02:28	WG2115647
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/17/2023 02:28	WG2115647
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/17/2023 02:28	WG2115647
Dichlorodifluoromethane	U		0.0327	0.100	1	08/17/2023 02:28	WG2115647
1,1-Dichloroethane	U		0.0230	0.100	1	08/17/2023 02:28	WG2115647
1,2-Dichloroethane	U		0.0190	0.100	1	08/17/2023 02:28	WG2115647
1,1-Dichloroethene	0.0390	J	0.0200	0.100	1	08/17/2023 02:28	WG2115647
cis-1,2-Dichloroethene	1.61		0.0276	0.100	1	08/17/2023 02:28	WG2115647
trans-1,2-Dichloroethene	U		0.0572	0.200	1	08/17/2023 02:28	WG2115647
1,2-Dichloropropane	U		0.0508	0.200	1	08/17/2023 02:28	WG2115647
1,1-Dichloropropene	U		0.0280	0.100	1	08/17/2023 02:28	WG2115647

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,3-Dichloropropane	U		0.0700	0.200	1	08/17/2023 02:28	WG2115647
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/17/2023 02:28	WG2115647
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/17/2023 02:28	WG2115647
2,2-Dichloropropane	U		0.0317	0.100	1	08/17/2023 02:28	WG2115647
Di-isopropyl ether	U		0.0140	0.0400	1	08/17/2023 02:28	WG2115647
Ethylbenzene	U		0.0212	0.100	1	08/17/2023 02:28	WG2115647
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/17/2023 02:28	WG2115647
2-Hexanone	U		0.400	1.00	1	08/17/2023 02:28	WG2115647
n-Hexane	U		0.0424	0.200	1	08/17/2023 02:28	WG2115647
Iodomethane	U		0.242	0.500	1	08/17/2023 02:28	WG2115647
Isopropylbenzene	U		0.0345	0.100	1	08/17/2023 02:28	WG2115647
p-Isopropyltoluene	U		0.0932	0.200	1	08/17/2023 02:28	WG2115647
2-Butanone (MEK)	U		0.500	1.00	1	08/17/2023 02:28	WG2115647
Methylene Chloride	U		0.265	1.00	1	08/17/2023 02:28	WG2115647
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/17/2023 02:28	WG2115647
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/17/2023 02:28	WG2115647
Naphthalene	U		0.124	0.500	1	08/17/2023 02:28	WG2115647
n-Propylbenzene	U		0.0472	0.200	1	08/17/2023 02:28	WG2115647
Styrene	U		0.109	0.500	1	08/17/2023 02:28	WG2115647
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/17/2023 02:28	WG2115647
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/17/2023 02:28	WG2115647
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/17/2023 02:28	WG2115647
Tetrachloroethene	0.0970	J	0.0280	0.100	1	08/17/2023 02:28	WG2115647
Toluene	0.0550	J	0.0500	0.200	1	08/17/2023 02:28	WG2115647
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/17/2023 02:28	WG2115647
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/17/2023 02:28	WG2115647
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/17/2023 02:28	WG2115647
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/17/2023 02:28	WG2115647
Trichloroethene	0.231		0.0160	0.0400	1	08/17/2023 02:28	WG2115647
Trichlorofluoromethane	U		0.0200	0.100	1	08/17/2023 02:28	WG2115647
1,2,3-Trichloropropane	U		0.204	0.500	1	08/17/2023 02:28	WG2115647
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	08/17/2023 02:28	WG2115647
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/17/2023 02:28	WG2115647
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/17/2023 02:28	WG2115647
Vinyl acetate	U	C3	0.141	0.500	1	08/17/2023 02:28	WG2115647
Vinyl chloride	10.5		0.0273	0.100	1	08/17/2023 02:28	WG2115647
Xylenes, Total	U		0.191	0.260	1	08/17/2023 02:28	WG2115647
(S) Toluene-d8	*111*			*75.0-131*		*08/17/2023 02:28*	WG2115647
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*08/17/2023 02:28*	WG2115647
(S) 1,2-Dichloroethane-d4	*95.1*			*70.0-130*		*08/17/2023 02:28*	WG2115647

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	41100		379	1000	1	08/16/2023 22:36	WG2115051
Nitrate	U		48.0	100	1	08/16/2023 22:36	WG2115051
Sulfate	14200		594	5000	1	08/16/2023 22:36	WG2115051

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	4280		102	1000	1	08/21/2023 19:27	WG2117713

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	25300		2.87	6.78	10	08/24/2023 11:44	WG2119823
Ethane	4.24		0.296	1.29	1	08/23/2023 14:28	WG2118962
Ethene	68.4		0.422	1.27	1	08/23/2023 14:28	WG2118962

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	37200		379	1000	1	08/16/2023 22:51	WG2115051
Nitrate	U		48.0	100	1	08/16/2023 22:51	WG2115051
Sulfate	12400		594	5000	1	08/16/2023 22:51	WG2115051

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	3200		102	1000	1	08/21/2023 19:46	WG2117713

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	19400		2.87	6.78	10	08/24/2023 11:50	WG2119823
Ethane	1.42		0.296	1.29	1	08/23/2023 14:35	WG2118962
Ethene	6.16		0.422	1.27	1	08/23/2023 14:35	WG2118962

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	5.27		0.548	1.00	1	08/17/2023 02:09	WG2115647
Acrylonitrile	U		0.0760	0.500	1	08/17/2023 02:09	WG2115647
Benzene	U		0.0160	0.0400	1	08/17/2023 02:09	WG2115647
Bromobenzene	U	J4	0.0420	0.500	1	08/17/2023 02:09	WG2115647
Bromochloromethane	U		0.0452	0.200	1	08/17/2023 02:09	WG2115647
Bromodichloromethane	U		0.0315	0.100	1	08/17/2023 02:09	WG2115647
Bromoform	U		0.239	1.00	1	08/17/2023 02:09	WG2115647
Bromomethane	U		0.148	0.500	1	08/17/2023 02:09	WG2115647
n-Butylbenzene	U		0.153	0.500	1	08/17/2023 02:09	WG2115647
sec-Butylbenzene	U		0.101	0.500	1	08/17/2023 02:09	WG2115647
tert-Butylbenzene	U		0.0620	0.200	1	08/17/2023 02:09	WG2115647
Carbon disulfide	U		0.162	0.500	1	08/17/2023 02:09	WG2115647
Carbon tetrachloride	U		0.0432	0.200	1	08/17/2023 02:09	WG2115647
Chlorobenzene	U		0.0229	0.100	1	08/17/2023 02:09	WG2115647
Chlorodibromomethane	U		0.0180	0.100	1	08/17/2023 02:09	WG2115647
Chloroethane	U		0.0432	0.200	1	08/17/2023 02:09	WG2115647
Chloroform	U		0.0166	0.100	1	08/17/2023 02:09	WG2115647
Chloromethane	U		0.0556	0.500	1	08/17/2023 02:09	WG2115647
2-Chlorotoluene	U		0.0368	0.100	1	08/17/2023 02:09	WG2115647
4-Chlorotoluene	U		0.0452	0.200	1	08/17/2023 02:09	WG2115647
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/17/2023 02:09	WG2115647
1,2-Dibromoethane	U		0.0210	0.100	1	08/17/2023 02:09	WG2115647
Dibromomethane	U		0.0400	0.200	1	08/17/2023 02:09	WG2115647
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/17/2023 02:09	WG2115647
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/17/2023 02:09	WG2115647
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/17/2023 02:09	WG2115647
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/17/2023 02:09	WG2115647
Dichlorodifluoromethane	U		0.0327	0.100	1	08/17/2023 02:09	WG2115647
1,1-Dichloroethane	U		0.0230	0.100	1	08/17/2023 02:09	WG2115647
1,2-Dichloroethane	U		0.0190	0.100	1	08/17/2023 02:09	WG2115647
1,1-Dichloroethene	U		0.0200	0.100	1	08/17/2023 02:09	WG2115647
cis-1,2-Dichloroethene	1.44		0.0276	0.100	1	08/17/2023 02:09	WG2115647
trans-1,2-Dichloroethene	U		0.0572	0.200	1	08/17/2023 02:09	WG2115647
1,2-Dichloropropane	U		0.0508	0.200	1	08/17/2023 02:09	WG2115647
1,1-Dichloropropene	U		0.0280	0.100	1	08/17/2023 02:09	WG2115647

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,3-Dichloropropane	U		0.0700	0.200	1	08/17/2023 02:09	WG2115647
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/17/2023 02:09	WG2115647
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/17/2023 02:09	WG2115647
2,2-Dichloropropane	U		0.0317	0.100	1	08/17/2023 02:09	WG2115647
Di-isopropyl ether	U		0.0140	0.0400	1	08/17/2023 02:09	WG2115647
Ethylbenzene	U		0.0212	0.100	1	08/17/2023 02:09	WG2115647
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/17/2023 02:09	WG2115647
2-Hexanone	U		0.400	1.00	1	08/17/2023 02:09	WG2115647
n-Hexane	U		0.0424	0.200	1	08/17/2023 02:09	WG2115647
Iodomethane	U		0.242	0.500	1	08/17/2023 02:09	WG2115647
Isopropylbenzene	U		0.0345	0.100	1	08/17/2023 02:09	WG2115647
p-Isopropyltoluene	U		0.0932	0.200	1	08/17/2023 02:09	WG2115647
2-Butanone (MEK)	U		0.500	1.00	1	08/17/2023 02:09	WG2115647
Methylene Chloride	U		0.265	1.00	1	08/17/2023 02:09	WG2115647
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/17/2023 02:09	WG2115647
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/17/2023 02:09	WG2115647
Naphthalene	U		0.124	0.500	1	08/17/2023 02:09	WG2115647
n-Propylbenzene	U		0.0472	0.200	1	08/17/2023 02:09	WG2115647
Styrene	U		0.109	0.500	1	08/17/2023 02:09	WG2115647
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/17/2023 02:09	WG2115647
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/17/2023 02:09	WG2115647
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/17/2023 02:09	WG2115647
Tetrachloroethene	0.0410	J	0.0280	0.100	1	08/17/2023 02:09	WG2115647
Toluene	0.117	J	0.0500	0.200	1	08/17/2023 02:09	WG2115647
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/17/2023 02:09	WG2115647
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/17/2023 02:09	WG2115647
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/17/2023 02:09	WG2115647
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/17/2023 02:09	WG2115647
Trichloroethene	0.0720		0.0160	0.0400	1	08/17/2023 02:09	WG2115647
Trichlorofluoromethane	U		0.0200	0.100	1	08/17/2023 02:09	WG2115647
1,2,3-Trichloropropane	U		0.204	0.500	1	08/17/2023 02:09	WG2115647
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	08/17/2023 02:09	WG2115647
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/17/2023 02:09	WG2115647
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/17/2023 02:09	WG2115647
Vinyl acetate	U	C3	0.141	0.500	1	08/17/2023 02:09	WG2115647
Vinyl chloride	4.30		0.0273	0.100	1	08/17/2023 02:09	WG2115647
Xylenes, Total	U		0.191	0.260	1	08/17/2023 02:09	WG2115647
(S) Toluene-d8	*110*			*75.0-131*		*08/17/2023 02:09*	WG2115647
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*08/17/2023 02:09*	WG2115647
(S) 1,2-Dichloroethane-d4	*96.7*			*70.0-130*		*08/17/2023 02:09*	WG2115647

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	15500		379	1000	1	08/16/2023 23:06	WG2115051
Nitrate	U		48.0	100	1	08/16/2023 23:06	WG2115051
Sulfate	36900		594	5000	1	08/16/2023 23:06	WG2115051

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1600		102	1000	1	08/21/2023 20:54	WG2117713

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	2350		0.287	0.678	1	08/23/2023 14:41	WG2118962
Ethane	8.50		0.296	1.29	1	08/23/2023 14:41	WG2118962
Ethene	16.2		0.422	1.27	1	08/23/2023 14:41	WG2118962

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.46		0.548	1.00	1	08/17/2023 01:50	WG2115647
Acrylonitrile	U		0.0760	0.500	1	08/17/2023 01:50	WG2115647
Benzene	U		0.0160	0.0400	1	08/17/2023 01:50	WG2115647
Bromobenzene	U	J4	0.0420	0.500	1	08/17/2023 01:50	WG2115647
Bromochloromethane	U		0.0452	0.200	1	08/17/2023 01:50	WG2115647
Bromodichloromethane	U		0.0315	0.100	1	08/17/2023 01:50	WG2115647
Bromoform	U		0.239	1.00	1	08/17/2023 01:50	WG2115647
Bromomethane	U		0.148	0.500	1	08/17/2023 01:50	WG2115647
n-Butylbenzene	U		0.153	0.500	1	08/17/2023 01:50	WG2115647
sec-Butylbenzene	U		0.101	0.500	1	08/17/2023 01:50	WG2115647
tert-Butylbenzene	U		0.0620	0.200	1	08/17/2023 01:50	WG2115647
Carbon disulfide	0.181	J	0.162	0.500	1	08/17/2023 01:50	WG2115647
Carbon tetrachloride	U		0.0432	0.200	1	08/17/2023 01:50	WG2115647
Chlorobenzene	U		0.0229	0.100	1	08/17/2023 01:50	WG2115647
Chlorodibromomethane	U		0.0180	0.100	1	08/17/2023 01:50	WG2115647
Chloroethane	U		0.0432	0.200	1	08/17/2023 01:50	WG2115647
Chloroform	U		0.0166	0.100	1	08/17/2023 01:50	WG2115647
Chloromethane	U		0.0556	0.500	1	08/17/2023 01:50	WG2115647
2-Chlorotoluene	U		0.0368	0.100	1	08/17/2023 01:50	WG2115647
4-Chlorotoluene	U		0.0452	0.200	1	08/17/2023 01:50	WG2115647
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/17/2023 01:50	WG2115647
1,2-Dibromoethane	U		0.0210	0.100	1	08/17/2023 01:50	WG2115647
Dibromomethane	U		0.0400	0.200	1	08/17/2023 01:50	WG2115647
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/17/2023 01:50	WG2115647
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/17/2023 01:50	WG2115647
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/17/2023 01:50	WG2115647
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/17/2023 01:50	WG2115647
Dichlorodifluoromethane	U		0.0327	0.100	1	08/17/2023 01:50	WG2115647
1,1-Dichloroethane	U		0.0230	0.100	1	08/17/2023 01:50	WG2115647
1,2-Dichloroethane	U		0.0190	0.100	1	08/17/2023 01:50	WG2115647
1,1-Dichloroethene	U		0.0200	0.100	1	08/17/2023 01:50	WG2115647
cis-1,2-Dichloroethene	U		0.0276	0.100	1	08/17/2023 01:50	WG2115647
trans-1,2-Dichloroethene	U		0.0572	0.200	1	08/17/2023 01:50	WG2115647
1,2-Dichloropropane	U		0.0508	0.200	1	08/17/2023 01:50	WG2115647
1,1-Dichloropropene	U		0.0280	0.100	1	08/17/2023 01:50	WG2115647

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,3-Dichloropropane	U		0.0700	0.200	1	08/17/2023 01:50	WG2115647
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/17/2023 01:50	WG2115647
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/17/2023 01:50	WG2115647
2,2-Dichloropropane	U		0.0317	0.100	1	08/17/2023 01:50	WG2115647
Di-isopropyl ether	U		0.0140	0.0400	1	08/17/2023 01:50	WG2115647
Ethylbenzene	0.0340	J	0.0212	0.100	1	08/17/2023 01:50	WG2115647
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/17/2023 01:50	WG2115647
2-Hexanone	U		0.400	1.00	1	08/17/2023 01:50	WG2115647
n-Hexane	U		0.0424	0.200	1	08/17/2023 01:50	WG2115647
Iodomethane	U		0.242	0.500	1	08/17/2023 01:50	WG2115647
Isopropylbenzene	U		0.0345	0.100	1	08/17/2023 01:50	WG2115647
p-Isopropyltoluene	U		0.0932	0.200	1	08/17/2023 01:50	WG2115647
2-Butanone (MEK)	U		0.500	1.00	1	08/17/2023 01:50	WG2115647
Methylene Chloride	U		0.265	1.00	1	08/17/2023 01:50	WG2115647
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/17/2023 01:50	WG2115647
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/17/2023 01:50	WG2115647
Naphthalene	U		0.124	0.500	1	08/17/2023 01:50	WG2115647
n-Propylbenzene	U		0.0472	0.200	1	08/17/2023 01:50	WG2115647
Styrene	U		0.109	0.500	1	08/17/2023 01:50	WG2115647
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/17/2023 01:50	WG2115647
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/17/2023 01:50	WG2115647
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/17/2023 01:50	WG2115647
Tetrachloroethene	U		0.0280	0.100	1	08/17/2023 01:50	WG2115647
Toluene	0.172	J	0.0500	0.200	1	08/17/2023 01:50	WG2115647
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/17/2023 01:50	WG2115647
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/17/2023 01:50	WG2115647
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/17/2023 01:50	WG2115647
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/17/2023 01:50	WG2115647
Trichloroethene	U		0.0160	0.0400	1	08/17/2023 01:50	WG2115647
Trichlorofluoromethane	U		0.0200	0.100	1	08/17/2023 01:50	WG2115647
1,2,3-Trichloropropane	U		0.204	0.500	1	08/17/2023 01:50	WG2115647
1,2,4-Trimethylbenzene	0.0730	J	0.0464	0.200	1	08/17/2023 01:50	WG2115647
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/17/2023 01:50	WG2115647
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/17/2023 01:50	WG2115647
Vinyl acetate	U	C3	0.141	0.500	1	08/17/2023 01:50	WG2115647
Vinyl chloride	2.89		0.0273	0.100	1	08/17/2023 01:50	WG2115647
Xylenes, Total	U		0.191	0.260	1	08/17/2023 01:50	WG2115647
(S) Toluene-d8	*114*			*75.0-131*		*08/17/2023 01:50*	WG2115647
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*08/17/2023 01:50*	WG2115647
(S) 1,2-Dichloroethane-d4	*95.5*			*70.0-130*		*08/17/2023 01:50*	WG2115647

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	U		379	1000	1	08/16/2023 23:21	WG2115051
Nitrate	U		48.0	100	1	08/16/2023 23:21	WG2115051
Sulfate	U		594	5000	1	08/16/2023 23:21	WG2115051

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	654	B J	102	1000	1	08/21/2023 21:13	WG2117713

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	U		0.287	0.678	1	08/23/2023 14:45	WG2118962
Ethane	U		0.296	1.29	1	08/23/2023 14:45	WG2118962
Ethene	U		0.422	1.27	1	08/23/2023 14:45	WG2118962

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.81		0.548	1.00	1	08/17/2023 01:32	WG2115647
Acrylonitrile	U		0.0760	0.500	1	08/17/2023 01:32	WG2115647
Benzene	U		0.0160	0.0400	1	08/17/2023 01:32	WG2115647
Bromobenzene	U	J4	0.0420	0.500	1	08/17/2023 01:32	WG2115647
Bromochloromethane	U		0.0452	0.200	1	08/17/2023 01:32	WG2115647
Bromodichloromethane	U		0.0315	0.100	1	08/17/2023 01:32	WG2115647
Bromoform	U		0.239	1.00	1	08/17/2023 01:32	WG2115647
Bromomethane	U		0.148	0.500	1	08/17/2023 01:32	WG2115647
n-Butylbenzene	U		0.153	0.500	1	08/17/2023 01:32	WG2115647
sec-Butylbenzene	U		0.101	0.500	1	08/17/2023 01:32	WG2115647
tert-Butylbenzene	U		0.0620	0.200	1	08/17/2023 01:32	WG2115647
Carbon disulfide	U		0.162	0.500	1	08/17/2023 01:32	WG2115647
Carbon tetrachloride	U		0.0432	0.200	1	08/17/2023 01:32	WG2115647
Chlorobenzene	U		0.0229	0.100	1	08/17/2023 01:32	WG2115647
Chlorodibromomethane	U		0.0180	0.100	1	08/17/2023 01:32	WG2115647
Chloroethane	U		0.0432	0.200	1	08/17/2023 01:32	WG2115647
Chloroform	U		0.0166	0.100	1	08/17/2023 01:32	WG2115647
Chloromethane	U		0.0556	0.500	1	08/17/2023 01:32	WG2115647
2-Chlorotoluene	U		0.0368	0.100	1	08/17/2023 01:32	WG2115647
4-Chlorotoluene	U		0.0452	0.200	1	08/17/2023 01:32	WG2115647
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/17/2023 01:32	WG2115647
1,2-Dibromoethane	U		0.0210	0.100	1	08/17/2023 01:32	WG2115647
Dibromomethane	U		0.0400	0.200	1	08/17/2023 01:32	WG2115647
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/17/2023 01:32	WG2115647
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/17/2023 01:32	WG2115647
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/17/2023 01:32	WG2115647
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/17/2023 01:32	WG2115647
Dichlorodifluoromethane	U		0.0327	0.100	1	08/17/2023 01:32	WG2115647
1,1-Dichloroethane	U		0.0230	0.100	1	08/17/2023 01:32	WG2115647
1,2-Dichloroethane	U		0.0190	0.100	1	08/17/2023 01:32	WG2115647
1,1-Dichloroethene	U		0.0200	0.100	1	08/17/2023 01:32	WG2115647
cis-1,2-Dichloroethene	U		0.0276	0.100	1	08/17/2023 01:32	WG2115647
trans-1,2-Dichloroethene	U		0.0572	0.200	1	08/17/2023 01:32	WG2115647
1,2-Dichloropropane	U		0.0508	0.200	1	08/17/2023 01:32	WG2115647
1,1-Dichloropropene	U		0.0280	0.100	1	08/17/2023 01:32	WG2115647

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,3-Dichloropropane	U		0.0700	0.200	1	08/17/2023 01:32	WG2115647
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/17/2023 01:32	WG2115647
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/17/2023 01:32	WG2115647
2,2-Dichloropropane	U		0.0317	0.100	1	08/17/2023 01:32	WG2115647
Di-isopropyl ether	U		0.0140	0.0400	1	08/17/2023 01:32	WG2115647
Ethylbenzene	U		0.0212	0.100	1	08/17/2023 01:32	WG2115647
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/17/2023 01:32	WG2115647
2-Hexanone	U		0.400	1.00	1	08/17/2023 01:32	WG2115647
n-Hexane	U		0.0424	0.200	1	08/17/2023 01:32	WG2115647
Iodomethane	U		0.242	0.500	1	08/17/2023 01:32	WG2115647
Isopropylbenzene	U		0.0345	0.100	1	08/17/2023 01:32	WG2115647
p-Isopropyltoluene	U		0.0932	0.200	1	08/17/2023 01:32	WG2115647
2-Butanone (MEK)	U		0.500	1.00	1	08/17/2023 01:32	WG2115647
Methylene Chloride	U		0.265	1.00	1	08/17/2023 01:32	WG2115647
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/17/2023 01:32	WG2115647
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/17/2023 01:32	WG2115647
Naphthalene	U		0.124	0.500	1	08/17/2023 01:32	WG2115647
n-Propylbenzene	U		0.0472	0.200	1	08/17/2023 01:32	WG2115647
Styrene	U		0.109	0.500	1	08/17/2023 01:32	WG2115647
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/17/2023 01:32	WG2115647
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/17/2023 01:32	WG2115647
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/17/2023 01:32	WG2115647
Tetrachloroethene	U		0.0280	0.100	1	08/17/2023 01:32	WG2115647
Toluene	0.0890	J	0.0500	0.200	1	08/17/2023 01:32	WG2115647
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/17/2023 01:32	WG2115647
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/17/2023 01:32	WG2115647
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/17/2023 01:32	WG2115647
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/17/2023 01:32	WG2115647
Trichloroethene	U		0.0160	0.0400	1	08/17/2023 01:32	WG2115647
Trichlorofluoromethane	U		0.0200	0.100	1	08/17/2023 01:32	WG2115647
1,2,3-Trichloropropane	U		0.204	0.500	1	08/17/2023 01:32	WG2115647
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	08/17/2023 01:32	WG2115647
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/17/2023 01:32	WG2115647
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/17/2023 01:32	WG2115647
Vinyl acetate	U	C3	0.141	0.500	1	08/17/2023 01:32	WG2115647
Vinyl chloride	U		0.0273	0.100	1	08/17/2023 01:32	WG2115647
Xylenes, Total	U		0.191	0.260	1	08/17/2023 01:32	WG2115647
(S) Toluene-d8	*115*			*75.0-131*		*08/17/2023 01:32*	WG2115647
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*08/17/2023 01:32*	WG2115647
(S) 1,2-Dichloroethane-d4	*95.3*			*70.0-130*		*08/17/2023 01:32*	WG2115647

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		0.548	1.00	1	08/17/2023 01:13	WG2115647
Acrylonitrile	U		0.0760	0.500	1	08/17/2023 01:13	WG2115647
Benzene	U		0.0160	0.0400	1	08/17/2023 01:13	WG2115647
Bromobenzene	U	J4	0.0420	0.500	1	08/17/2023 01:13	WG2115647
Bromochloromethane	U		0.0452	0.200	1	08/17/2023 01:13	WG2115647
Bromodichloromethane	U		0.0315	0.100	1	08/17/2023 01:13	WG2115647
Bromoform	U		0.239	1.00	1	08/17/2023 01:13	WG2115647
Bromomethane	U		0.148	0.500	1	08/17/2023 01:13	WG2115647
n-Butylbenzene	U		0.153	0.500	1	08/17/2023 01:13	WG2115647
sec-Butylbenzene	U		0.101	0.500	1	08/17/2023 01:13	WG2115647
tert-Butylbenzene	U		0.0620	0.200	1	08/17/2023 01:13	WG2115647
Carbon disulfide	U		0.162	0.500	1	08/17/2023 01:13	WG2115647
Carbon tetrachloride	U		0.0432	0.200	1	08/17/2023 01:13	WG2115647
Chlorobenzene	U		0.0229	0.100	1	08/17/2023 01:13	WG2115647
Chlorodibromomethane	U		0.0180	0.100	1	08/17/2023 01:13	WG2115647
Chloroethane	U		0.0432	0.200	1	08/17/2023 01:13	WG2115647
Chloroform	U		0.0166	0.100	1	08/17/2023 01:13	WG2115647
Chloromethane	U		0.0556	0.500	1	08/17/2023 01:13	WG2115647
2-Chlorotoluene	U		0.0368	0.100	1	08/17/2023 01:13	WG2115647
4-Chlorotoluene	U		0.0452	0.200	1	08/17/2023 01:13	WG2115647
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/17/2023 01:13	WG2115647
1,2-Dibromoethane	U		0.0210	0.100	1	08/17/2023 01:13	WG2115647
Dibromomethane	U		0.0400	0.200	1	08/17/2023 01:13	WG2115647
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/17/2023 01:13	WG2115647
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/17/2023 01:13	WG2115647
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/17/2023 01:13	WG2115647
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/17/2023 01:13	WG2115647
Dichlorodifluoromethane	U		0.0327	0.100	1	08/17/2023 01:13	WG2115647
1,1-Dichloroethane	U		0.0230	0.100	1	08/17/2023 01:13	WG2115647
1,2-Dichloroethane	U		0.0190	0.100	1	08/17/2023 01:13	WG2115647
1,1-Dichloroethene	U		0.0200	0.100	1	08/17/2023 01:13	WG2115647
cis-1,2-Dichloroethene	U		0.0276	0.100	1	08/17/2023 01:13	WG2115647
trans-1,2-Dichloroethene	U		0.0572	0.200	1	08/17/2023 01:13	WG2115647
1,2-Dichloropropane	U		0.0508	0.200	1	08/17/2023 01:13	WG2115647
1,1-Dichloropropene	U		0.0280	0.100	1	08/17/2023 01:13	WG2115647
1,3-Dichloropropane	U		0.0700	0.200	1	08/17/2023 01:13	WG2115647
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/17/2023 01:13	WG2115647
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/17/2023 01:13	WG2115647
2,2-Dichloropropane	U		0.0317	0.100	1	08/17/2023 01:13	WG2115647
Di-isopropyl ether	U		0.0140	0.0400	1	08/17/2023 01:13	WG2115647
Ethylbenzene	U		0.0212	0.100	1	08/17/2023 01:13	WG2115647
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/17/2023 01:13	WG2115647
2-Hexanone	U		0.400	1.00	1	08/17/2023 01:13	WG2115647
n-Hexane	U		0.0424	0.200	1	08/17/2023 01:13	WG2115647
Iodomethane	U		0.242	0.500	1	08/17/2023 01:13	WG2115647
Isopropylbenzene	U		0.0345	0.100	1	08/17/2023 01:13	WG2115647
p-Isopropyltoluene	U		0.0932	0.200	1	08/17/2023 01:13	WG2115647
2-Butanone (MEK)	U		0.500	1.00	1	08/17/2023 01:13	WG2115647
Methylene Chloride	U		0.265	1.00	1	08/17/2023 01:13	WG2115647
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/17/2023 01:13	WG2115647
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/17/2023 01:13	WG2115647
Naphthalene	U		0.124	0.500	1	08/17/2023 01:13	WG2115647
n-Propylbenzene	U		0.0472	0.200	1	08/17/2023 01:13	WG2115647
Styrene	U		0.109	0.500	1	08/17/2023 01:13	WG2115647
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/17/2023 01:13	WG2115647
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/17/2023 01:13	WG2115647

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/17/2023 01:13	WG2115647
Tetrachloroethene	U		0.0280	0.100	1	08/17/2023 01:13	WG2115647
Toluene	U		0.0500	0.200	1	08/17/2023 01:13	WG2115647
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/17/2023 01:13	WG2115647
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/17/2023 01:13	WG2115647
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/17/2023 01:13	WG2115647
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/17/2023 01:13	WG2115647
Trichloroethene	U		0.0160	0.0400	1	08/17/2023 01:13	WG2115647
Trichlorofluoromethane	U		0.0200	0.100	1	08/17/2023 01:13	WG2115647
1,2,3-Trichloropropane	U		0.204	0.500	1	08/17/2023 01:13	WG2115647
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	08/17/2023 01:13	WG2115647
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/17/2023 01:13	WG2115647
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/17/2023 01:13	WG2115647
Vinyl acetate	U	C3	0.141	0.500	1	08/17/2023 01:13	WG2115647
Vinyl chloride	U		0.0273	0.100	1	08/17/2023 01:13	WG2115647
Xylenes, Total	U		0.191	0.260	1	08/17/2023 01:13	WG2115647
(S) Toluene-d8	*112*			*75.0-131*		*08/17/2023 01:13*	WG2115647
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*08/17/2023 01:13*	WG2115647
(S) 1,2-Dichloroethane-d4	*96.0*			*70.0-130*		*08/17/2023 01:13*	WG2115647

Method Blank (MB)

(MB) R3962957-1 08/16/23 09:57

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000
Nitrate	U		48.0	100
Sulfate	U		594	5000

L1646194-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1646194-01 08/16/23 18:37 • (DUP) R3962957-5 08/16/23 19:52

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7800	7790	1	0.165		15
Nitrate	1020	1080	1	5.19		15
Sulfate	21200	21200	1	0.152		15

L1646556-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1646556-01 08/16/23 23:35 • (DUP) R3962957-6 08/16/23 23:50

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	22100	22000	1	0.445		15
Nitrate	U	U	1	0.000		15
Sulfate	60700	59300	1	2.44		15

Laboratory Control Sample (LCS)

(LCS) R3962957-2 08/16/23 10:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39800	99.6	80.0-120	
Nitrate	8000	7810	97.6	80.0-120	
Sulfate	40000	39500	98.9	80.0-120	

L1646194-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646194-01 08/16/23 18:37 • (MS) R3962957-3 08/16/23 18:52 • (MSD) R3962957-4 08/16/23 19:37

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	7800	58500	58500	101	101	1	80.0-120			0.0431	15
Nitrate	5000	1020	5430	5340	88.1	86.4	1	80.0-120			1.56	15
Sulfate	50000	21200	67300	67300	92.2	92.1	1	80.0-120			0.101	15

L1646556-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1646556-01 08/16/23 23:35 • (MS) R3962957-7 08/17/23 00:05

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	22100	72400	101	1	80.0-120	
Nitrate	5000	U	4880	97.5	1	80.0-120	
Sulfate	50000	60700	107000	92.9	1	80.0-120	

Method Blank (MB)

(MB) R3963596-2 08/21/23 11:43

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	108	J	102	1000

L1646504-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1646504-03 08/21/23 18:08 • (DUP) R3963596-3 08/21/23 18:27

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	1640	1420	1	14.1		20

L1646514-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1646514-02 08/21/23 21:46 • (DUP) R3963596-6 08/21/23 22:03

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	706	728	1	3.11	J	20

Laboratory Control Sample (LCS)

(LCS) R3963596-1 08/21/23 11:27

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC (Total Organic Carbon)	25000	24100	96.4	85.0-115	

L1646504-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646504-05 08/21/23 19:46 • (MS) R3963596-4 08/21/23 20:11 • (MSD) R3963596-5 08/21/23 20:35

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	25000	3200	27500	27500	97.1	97.3	1	80.0-120			0.146	20

L1646514-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646514-08 08/22/23 00:25 • (MS) R3963596-7 08/22/23 00:50 • (MSD) R3963596-8 08/22/23 01:14

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	25000	435	24900	25900	98.0	102	1	80.0-120			3.86	20

Method Blank (MB)

(MB) R3964250-2 08/22/23 15:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

L1646200-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1646200-07 08/22/23 15:25 • (DUP) R3964250-3 08/22/23 15:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

L1646360-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1646360-01 08/22/23 16:09 • (DUP) R3964250-4 08/22/23 16:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3964250-1 08/22/23 15:13 • (LCSD) R3964250-5 08/22/23 16:36

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	70.6	72.7	104	107	85.0-115			2.93	20
Ethane	129	120	119	93.0	92.2	85.0-115			0.837	20
Ethene	127	119	119	93.7	93.7	85.0-115			0.000	20

Method Blank (MB)

(MB) R3964585-2 08/23/23 14:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Methane	3.10		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

L1646514-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1646514-05 08/23/23 15:14 • (DUP) R3964585-3 08/23/23 15:16

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

L1646750-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1646750-03 08/23/23 16:02 • (DUP) R3964585-4 08/23/23 16:08

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3964585-1 08/23/23 14:07 • (LCSD) R3964585-5 08/23/23 16:10

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	67.8	65.9	68.1	97.2	100	85.0-115			3.28	20
Ethane	129	115	114	89.1	88.4	85.0-115			0.873	20
Ethene	127	116	114	91.3	89.8	85.0-115			1.74	20

Method Blank (MB)

(MB) R3964983-2 08/24/23 11:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Methane	3.26		0.287	0.678

L1647190-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1647190-07 08/24/23 13:29 • (DUP) R3964983-3 08/24/23 13:32

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	U	U	1	0.000		20

L1647275-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1647275-04 08/24/23 14:01 • (DUP) R3964983-4 08/24/23 14:10

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	6370	6740	1	5.64		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3964983-1 08/24/23 11:11 • (LCSD) R3964983-5 08/24/23 14:13

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	67.8	65.5	70.2	96.6	104	85.0-115			6.93	20

Method Blank (MB)

(MB) R3961908-2 08/16/23 23:08

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		0.548	1.00
Acrylonitrile	U		0.0760	0.500
Benzene	U		0.0160	0.0400
Bromobenzene	U		0.0420	0.500
Bromochloromethane	U		0.0452	0.200
Bromodichloromethane	U		0.0315	0.100
Bromoform	U		0.239	1.00
Bromomethane	U		0.148	0.500
n-Butylbenzene	U		0.153	0.500
sec-Butylbenzene	U		0.101	0.500
tert-Butylbenzene	U		0.0620	0.200
Carbon disulfide	U		0.162	0.500
Carbon tetrachloride	U		0.0432	0.200
Chlorobenzene	U		0.0229	0.100
Chlorodibromomethane	U		0.0180	0.100
Chloroethane	U		0.0432	0.200
Chloroform	U		0.0166	0.100
Chloromethane	U		0.0556	0.500
2-Chlorotoluene	U		0.0368	0.100
4-Chlorotoluene	U		0.0452	0.200
1,2-Dibromo-3-Chloropropane	U		0.204	1.00
1,2-Dibromoethane	U		0.0210	0.100
Dibromomethane	U		0.0400	0.200
1,2-Dichlorobenzene	U		0.0580	0.200
1,3-Dichlorobenzene	U		0.0680	0.200
1,4-Dichlorobenzene	U		0.0788	0.200
trans-1,4-Dichloro-2-butene	U		0.0560	0.200
Dichlorodifluoromethane	U		0.0327	0.100
1,1-Dichloroethane	U		0.0230	0.100
1,2-Dichloroethane	U		0.0190	0.100
1,1-Dichloroethene	U		0.0200	0.100
cis-1,2-Dichloroethene	U		0.0276	0.100
trans-1,2-Dichloroethene	U		0.0572	0.200
1,2-Dichloropropane	U		0.0508	0.200
1,1-Dichloropropene	U		0.0280	0.100
1,3-Dichloropropane	U		0.0700	0.200
cis-1,3-Dichloropropene	U		0.0271	0.100
trans-1,3-Dichloropropene	U		0.0612	0.200
2,2-Dichloropropane	U		0.0317	0.100
Di-isopropyl ether	U		0.0140	0.0400

Method Blank (MB)

(MB) R3961908-2 08/16/23 23:08

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.0212	0.100
Hexachloro-1,3-butadiene	U		0.508	1.00
2-Hexanone	U		0.400	1.00
n-Hexane	U		0.0424	0.200
Iodomethane	U		0.242	0.500
Isopropylbenzene	U		0.0345	0.100
p-Isopropyltoluene	U		0.0932	0.200
2-Butanone (MEK)	U		0.500	1.00
Methylene Chloride	U		0.265	1.00
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00
Methyl tert-butyl ether	U		0.0118	0.0400
Naphthalene	U		0.124	0.500
n-Propylbenzene	U		0.0472	0.200
Styrene	U		0.109	0.500
1,1,1,2-Tetrachloroethane	U		0.0200	0.100
1,1,2,2-Tetrachloroethane	U		0.0156	0.100
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100
Tetrachloroethene	U		0.0280	0.100
Toluene	U		0.0500	0.200
1,2,3-Trichlorobenzene	U		0.0250	0.500
1,2,4-Trichlorobenzene	U		0.193	0.500
1,1,1-Trichloroethane	U		0.0110	0.100
1,1,2-Trichloroethane	U		0.0353	0.100
Trichloroethene	U		0.0160	0.0400
Trichlorofluoromethane	U		0.0200	0.100
1,2,3-Trichloropropane	U		0.204	0.500
1,2,4-Trimethylbenzene	U		0.0464	0.200
1,2,3-Trimethylbenzene	U		0.0460	0.200
1,3,5-Trimethylbenzene	U		0.0432	0.200
Vinyl acetate	U		0.141	0.500
Vinyl chloride	U		0.0273	0.100
Xylenes, Total	U		0.191	0.260
(S) Toluene-d8	*115*			*75.0-131*
(S) 4-Bromofluorobenzene	*103*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*91.9*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3961908-1 08/16/23 21:54 • (LCSD) R3961908-3 08/16/23 23:27

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	26.6	32.0	106	128	10.0-160			18.4	31
Acrylonitrile	25.0	23.9	24.7	95.6	98.8	45.0-153			3.29	22
Benzene	5.00	4.79	4.66	95.8	93.2	70.0-123			2.75	20
Bromobenzene	5.00	6.16	5.82	123	116	73.0-121	J4		5.68	20
Bromochloromethane	5.00	5.17	4.91	103	98.2	77.0-128			5.16	20
Bromodichloromethane	5.00	4.69	4.79	93.8	95.8	73.0-121			2.11	20
Bromoform	5.00	5.69	5.52	114	110	64.0-132			3.03	20
Bromomethane	5.00	4.57	4.55	91.4	91.0	56.0-147			0.439	20
n-Butylbenzene	5.00	5.99	5.63	120	113	68.0-135			6.20	20
sec-Butylbenzene	5.00	5.88	5.59	118	112	74.0-130			5.06	20
tert-Butylbenzene	5.00	6.11	5.76	122	115	75.0-127			5.90	20
Carbon disulfide	5.00	4.72	4.55	94.4	91.0	56.0-133			3.67	20
Carbon tetrachloride	5.00	4.85	4.85	97.0	97.0	66.0-128			0.000	20
Chlorobenzene	5.00	5.77	5.63	115	113	76.0-128			2.46	20
Chlorodibromomethane	5.00	5.83	5.74	117	115	74.0-127			1.56	20
Chloroethane	5.00	4.87	4.71	97.4	94.2	61.0-134			3.34	20
Chloroform	5.00	4.66	4.45	93.2	89.0	72.0-123			4.61	20
Chloromethane	5.00	4.90	4.70	98.0	94.0	51.0-138			4.17	20
2-Chlorotoluene	5.00	5.98	5.70	120	114	75.0-124			4.79	20
4-Chlorotoluene	5.00	5.51	5.11	110	102	75.0-124			7.53	20
1,2-Dibromo-3-Chloropropane	5.00	5.20	5.13	104	103	59.0-130			1.36	20
1,2-Dibromoethane	5.00	5.78	5.67	116	113	74.0-128			1.92	20
Dibromomethane	5.00	4.81	4.82	96.2	96.4	75.0-122			0.208	20
1,2-Dichlorobenzene	5.00	5.75	5.61	115	112	76.0-124			2.46	20
1,3-Dichlorobenzene	5.00	5.75	5.56	115	111	76.0-125			3.36	20
1,4-Dichlorobenzene	5.00	5.65	5.44	113	109	77.0-121			3.79	20
trans-1,4-Dichloro-2-butene	5.00	5.19	4.84	104	96.8	45.0-143			6.98	20
Dichlorodifluoromethane	5.00	5.16	4.87	103	97.4	43.0-156			5.78	20
1,1-Dichloroethane	5.00	4.84	4.77	96.8	95.4	70.0-127			1.46	20
1,2-Dichloroethane	5.00	4.80	4.76	96.0	95.2	65.0-131			0.837	20
1,1-Dichloroethene	5.00	4.96	4.89	99.2	97.8	65.0-131			1.42	20
cis-1,2-Dichloroethene	5.00	4.52	4.57	90.4	91.4	73.0-125			1.10	20
trans-1,2-Dichloroethene	5.00	4.94	4.92	98.8	98.4	71.0-125			0.406	20
1,2-Dichloropropane	5.00	4.67	4.71	93.4	94.2	74.0-125			0.853	20
1,1-Dichloropropene	5.00	4.79	4.90	95.8	98.0	73.0-125			2.27	20
1,3-Dichloropropane	5.00	5.41	5.32	108	106	80.0-125			1.68	20
cis-1,3-Dichloropropene	5.00	4.76	4.69	95.2	93.8	76.0-127			1.48	20
trans-1,3-Dichloropropene	5.00	5.40	5.17	108	103	73.0-127			4.35	20
2,2-Dichloropropane	5.00	4.81	4.12	96.2	82.4	59.0-135			15.5	20
Di-isopropyl ether	5.00	4.69	4.61	93.8	92.2	60.0-136			1.72	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3961908-1 08/16/23 21:54 • (LCSD) R3961908-3 08/16/23 23:27

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	5.00	5.73	5.39	115	108	74.0-126			6.12	20
Hexachloro-1,3-butadiene	5.00	6.28	5.90	126	118	57.0-150			6.24	20
2-Hexanone	25.0	31.1	30.2	124	121	54.0-147			2.94	20
n-Hexane	5.00	5.15	4.91	103	98.2	55.0-137			4.77	20
Iodomethane	25.0	23.6	23.4	94.4	93.6	74.0-134			0.851	20
Isopropylbenzene	5.00	5.98	5.56	120	111	72.0-127			7.28	20
p-Isopropyltoluene	5.00	6.08	5.54	122	111	72.0-133			9.29	20
2-Butanone (MEK)	25.0	25.9	23.9	104	95.6	30.0-160			8.03	24
Methylene Chloride	5.00	4.66	4.64	93.2	92.8	68.0-123			0.430	20
4-Methyl-2-pentanone (MIBK)	25.0	27.9	27.6	112	110	56.0-143			1.08	20
Methyl tert-butyl ether	5.00	4.48	4.71	89.6	94.2	66.0-132			5.01	20
Naphthalene	5.00	4.88	4.91	97.6	98.2	59.0-130			0.613	20
n-Propylbenzene	5.00	5.68	5.51	114	110	74.0-126			3.04	20
Styrene	5.00	5.38	5.17	108	103	72.0-127			3.98	20
1,1,1,2-Tetrachloroethane	5.00	5.55	5.65	111	113	74.0-129			1.79	20
1,1,2,2-Tetrachloroethane	5.00	5.19	5.20	104	104	68.0-128			0.192	20
1,1,2-Trichlorotrifluoroethane	5.00	5.36	4.91	107	98.2	61.0-139			8.76	20
Tetrachloroethene	5.00	6.06	5.79	121	116	70.0-136			4.56	20
Toluene	5.00	5.42	5.21	108	104	75.0-121			3.95	20
1,2,3-Trichlorobenzene	5.00	4.93	5.14	98.6	103	59.0-139			4.17	20
1,2,4-Trichlorobenzene	5.00	5.60	5.41	112	108	62.0-137			3.45	20
1,1,1-Trichloroethane	5.00	4.82	4.92	96.4	98.4	69.0-126			2.05	20
1,1,2-Trichloroethane	5.00	5.73	5.65	115	113	78.0-123			1.41	20
Trichloroethene	5.00	5.10	5.00	102	100	76.0-126			1.98	20
Trichlorofluoromethane	5.00	4.86	4.72	97.2	94.4	61.0-142			2.92	20
1,2,3-Trichloropropane	5.00	5.53	5.46	111	109	67.0-129			1.27	20
1,2,4-Trimethylbenzene	5.00	5.74	5.50	115	110	70.0-126			4.27	20
1,2,3-Trimethylbenzene	5.00	5.65	5.48	113	110	74.0-124			3.05	20
1,3,5-Trimethylbenzene	5.00	5.77	5.53	115	111	73.0-127			4.25	20
Vinyl acetate	25.0	18.5	20.8	74.0	83.2	43.0-159			11.7	20
Vinyl chloride	5.00	4.71	4.58	94.2	91.6	63.0-134			2.80	20
Xylenes, Total	15.0	17.5	16.6	117	111	72.0-127			5.28	20
(S) Toluene-d8				*115*	*113*	*75.0-131*				
(S) 4-Bromofluorobenzene				*103*	*104*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*92.2*	*94.7*	*70.0-130*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
PES Environmental, Inc.- WA

2101 Fourth Ave., Suite 1310
Seattle, WA 98121

Billing Information:
Attn: Accounts Payable
2101 4th Avenue, Suite 1310
Seattle, WA 98121

Pres Chk

Report to:
Bill Haldeman

Email To:
Rachel.McLaughlin@nv5.com;bill.haldeman@nv

Project Description:
American Linen (SDOT Mercer Parcels)

City/State Collected:

Please Circle: PT MT CT ET

Phone: **206-529-3980**

Client Project #
1413001.10.603.04

Lab Project #
PESENVSWA-ALP

Collected by (print):
Osmin Monroy

Site/Facility ID #

P.O. #
443018-1413001.05.601

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: 5+D

Analysis / Container / Preservative

PH-10BDH4321 TRC-2144141
CR6-20221V

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE,NITRATE 250mlHDPE-NoPres	RSK175LL 40mlAmb-HCl	SULFATE 250mlHDPE-NoPres	TOC 250mlAmb-HCl	V8260ULL 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-346-081523	G	GW	—	8/15/23	805	7	X	X	X	X	X		-01
MW-992-081523		GW	—		900	7	X	X	X	X	X		-02
MW-347-081523		GW	—		433	7	X	X	X	X	X		-03
MW-348-081523		GW	—		1050	7	X	X	X	X	X		-04
MW-349-081523		GW	—		1221	7	X	X	X	X	X		-05
MW-350-081523		GW	—		1330	7	X	X	X	X	X		-06
EQ-081523		GW	—		1450	7	X	X	X	X			-07
TB-081523		GW	—		1505	1					X		-08
		GW											

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1646504
D125

Acctnum: **PESENVSWA**
Template: **T235110**
Prelogin: **P1015470**
PM: **546 - Jared Starkey**
PB: Bf 8/2/23

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Tier 2 lab QA/QC (batch QC OK) are required

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking # 6643 4296 5482

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y ___ N
COC Signed/Accurate:		✓ ___ N
Bottles arrive intact:		✓ ___ N
Correct bottles used:		✓ ___ N
Sufficient volume sent:		✓ ___ N
If Applicable		
VOA Zero Headspace:		✓ ___ N
Preservation Correct/Checked:		✓ ___ N
RAD Screen <0.5 mR/hr:		✓ ___ N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	8/15/23	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: (Yes) / No
(HCL) / MeoH
TBR

Temp 6.8A °C 0.2+0=0.2
Bottles Received: 49

Date: 8/16/23 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: (NCF) / OK

VOR

08/16/23 - NCF L1646504 PESENVSWA

R2/R3/R4/RX/EX

Time estimate: oh **Time spent:** oh

Members

Deanna Ramsey (responsible) JS Jared Starkey

- [ ] Parameter(s) past holding time
- [ ] Temperature not in range
- [ ] Improper container type
- [ ] pH not in range
- [ ] Insufficient sample volume
- [ ] Sample is biphasic
- [x] Vials received with headspace
- [ ] Broken container
- [ ] Sufficient sample remains
- [ ] If broken container: Insufficient packing material around container
- [ ] If broken container: Insufficient packing material inside cooler
- [ ] If broken container: Improper handling by carrier:_____
- [ ] If broken container: Sample was frozen
- [ ] If broken container: Container lid not intact
- [ ] Client informed by Call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:_____
- [ ] PM initials:_____
- [ ] Client Contact:_____

Comments

Deanna Ramsey *16 August 2023 11:19 AM*

ID: MW-348-01523 all 40mlamb-HCL received with headspace

Jared Starkey *16 August 2023 12:11 PM*

Place sample on HOLD for now.

Deanna Ramsey *16 August 2023 1:54 PM*

done

ANALYTICAL REPORT

August 29, 2023

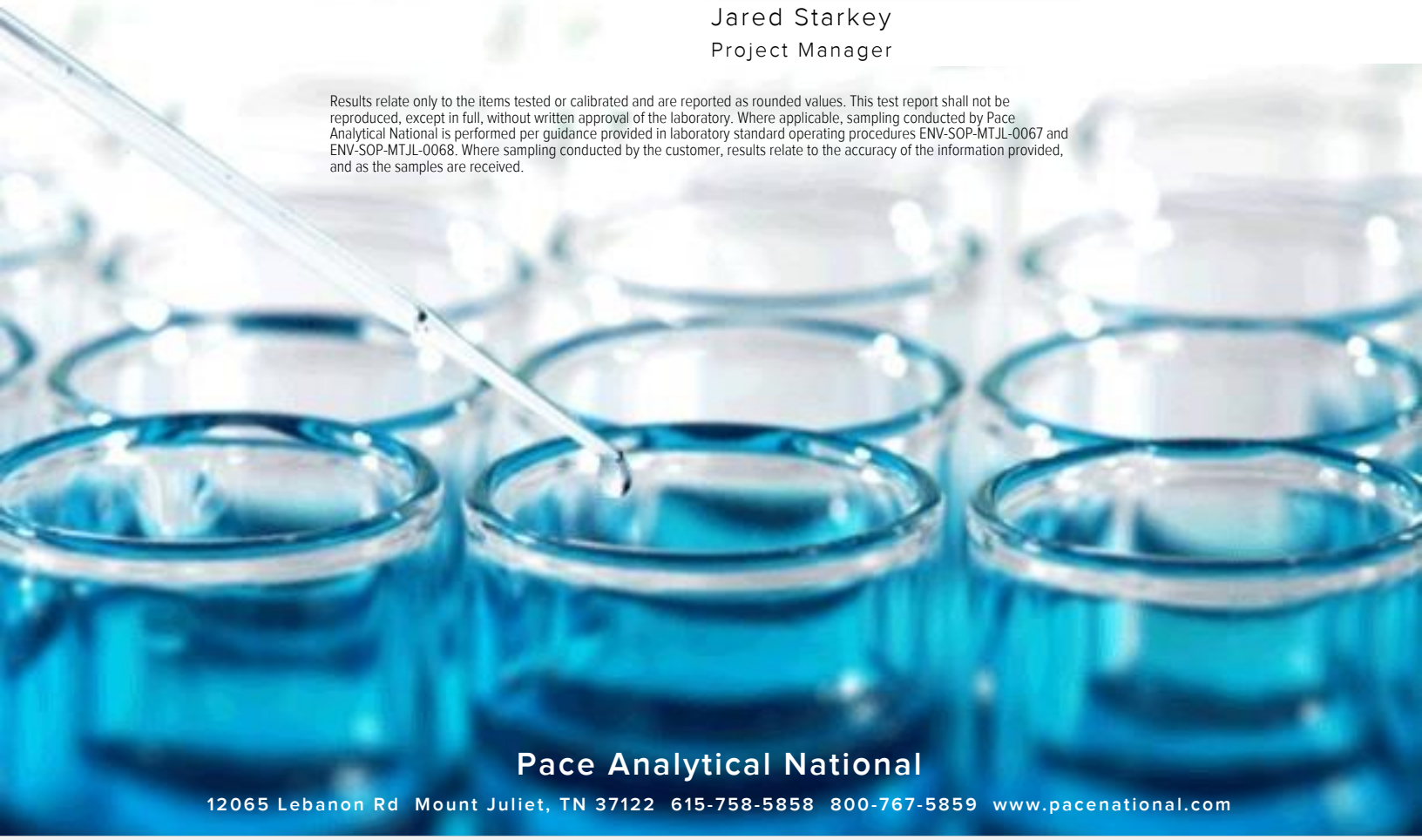
PES Environmental, Inc.- WA

Sample Delivery Group:	L1647036
Samples Received:	08/17/2023
Project Number:	1413001.10.701.02
Description:	American Linen

Report To: Bill Haldeman
2101 Fourth Ave., Suite 1310
Seattle, WA 98121

Entire Report Reviewed By:

Jared Starkey
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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HMW-9IB-081623 L1647036-01 GW

Collected by: Osmin Monroy | Collected date/time: 08/16/23 08:30 | Received date/time: 08/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2115763	1	08/17/23 22:00	08/17/23 22:00	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2117715	5	08/23/23 21:19	08/23/23 21:19	SJF	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2118976	1	08/23/23 11:39	08/23/23 11:39	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2119823	10	08/24/23 11:56	08/24/23 11:56	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2122065	1	08/28/23 05:25	08/28/23 05:25	ACG	Mt. Juliet, TN

MW107-081623 L1647036-02 GW

Collected by: Osmin Monroy | Collected date/time: 08/16/23 09:56 | Received date/time: 08/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2122065	1	08/28/23 05:44	08/28/23 05:44	ACG	Mt. Juliet, TN

W-MW-01-081623 L1647036-03 GW

Collected by: Osmin Monroy | Collected date/time: 08/16/23 10:53 | Received date/time: 08/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2119135	1	08/23/23 00:14	08/23/23 00:14	ADM	Mt. Juliet, TN

MW113-081623 L1647036-04 GW

Collected by: Osmin Monroy | Collected date/time: 08/16/23 12:37 | Received date/time: 08/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2119135	1	08/23/23 00:33	08/23/23 00:33	ADM	Mt. Juliet, TN

MW-348-081623 L1647036-05 GW

Collected by: Osmin Monroy | Collected date/time: 08/16/23 13:43 | Received date/time: 08/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2116143	1	08/18/23 00:31	08/18/23 00:31	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2117715	1	08/23/23 21:35	08/23/23 21:35	SJF	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2118976	1	08/23/23 11:43	08/23/23 11:43	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2119823	10	08/24/23 12:09	08/24/23 12:09	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2119135	1	08/23/23 00:52	08/23/23 00:52	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2119336	5	08/27/23 15:06	08/27/23 15:06	ACG	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jared Starkey
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	48100		379	1000	1	08/17/2023 22:00	WG2115763
Nitrate	U		48.0	100	1	08/17/2023 22:00	WG2115763
Sulfate	663	J	594	5000	1	08/17/2023 22:00	WG2115763

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	37800		510	5000	5	08/23/2023 21:19	WG2117715

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	35900		2.87	6.78	10	08/24/2023 11:56	WG2119823
Ethane	14.8		0.296	1.29	1	08/23/2023 11:39	WG2118976
Ethene	126		0.422	1.27	1	08/23/2023 11:39	WG2118976

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	11.4	C3	0.548	1.00	1	08/28/2023 05:25	WG2122065
Acrylonitrile	U		0.0760	0.500	1	08/28/2023 05:25	WG2122065
Benzene	0.0260	J	0.0160	0.0400	1	08/28/2023 05:25	WG2122065
Bromobenzene	U		0.0420	0.500	1	08/28/2023 05:25	WG2122065
Bromodichloromethane	U		0.0315	0.100	1	08/28/2023 05:25	WG2122065
Bromoform	U		0.239	1.00	1	08/28/2023 05:25	WG2122065
Bromomethane	U		0.148	0.500	1	08/28/2023 05:25	WG2122065
n-Butylbenzene	U		0.153	0.500	1	08/28/2023 05:25	WG2122065
sec-Butylbenzene	U		0.101	0.500	1	08/28/2023 05:25	WG2122065
tert-Butylbenzene	U		0.0620	0.200	1	08/28/2023 05:25	WG2122065
Carbon tetrachloride	U		0.0432	0.200	1	08/28/2023 05:25	WG2122065
Chlorobenzene	U		0.0229	0.100	1	08/28/2023 05:25	WG2122065
Chlorodibromomethane	U		0.0180	0.100	1	08/28/2023 05:25	WG2122065
Chloroethane	U	J4	0.0432	0.200	1	08/28/2023 05:25	WG2122065
Chloroform	U		0.0166	0.100	1	08/28/2023 05:25	WG2122065
Chloromethane	U		0.0556	0.500	1	08/28/2023 05:25	WG2122065
2-Chlorotoluene	U		0.0368	0.100	1	08/28/2023 05:25	WG2122065
4-Chlorotoluene	U		0.0452	0.200	1	08/28/2023 05:25	WG2122065
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/28/2023 05:25	WG2122065
1,2-Dibromoethane	U		0.0210	0.100	1	08/28/2023 05:25	WG2122065
Dibromomethane	U		0.0400	0.200	1	08/28/2023 05:25	WG2122065
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/28/2023 05:25	WG2122065
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/28/2023 05:25	WG2122065
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/28/2023 05:25	WG2122065
Dichlorodifluoromethane	U		0.0327	0.100	1	08/28/2023 05:25	WG2122065
1,1-Dichloroethane	U		0.0230	0.100	1	08/28/2023 05:25	WG2122065
1,2-Dichloroethane	0.120		0.0190	0.100	1	08/28/2023 05:25	WG2122065
1,1-Dichloroethene	U		0.0200	0.100	1	08/28/2023 05:25	WG2122065
cis-1,2-Dichloroethene	8.86		0.0276	0.100	1	08/28/2023 05:25	WG2122065
trans-1,2-Dichloroethene	0.680		0.0572	0.200	1	08/28/2023 05:25	WG2122065
1,2-Dichloropropane	U		0.0508	0.200	1	08/28/2023 05:25	WG2122065
1,1-Dichloropropene	U		0.0280	0.100	1	08/28/2023 05:25	WG2122065
1,3-Dichloropropane	U		0.0700	0.200	1	08/28/2023 05:25	WG2122065
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/28/2023 05:25	WG2122065
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/28/2023 05:25	WG2122065

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
2,2-Dichloropropane	U		0.0317	0.100	1	08/28/2023 05:25	WG2122065
Di-isopropyl ether	U		0.0140	0.0400	1	08/28/2023 05:25	WG2122065
Ethylbenzene	0.0920	J	0.0212	0.100	1	08/28/2023 05:25	WG2122065
Hexachloro-1,3-butadiene	U	C3	0.508	1.00	1	08/28/2023 05:25	WG2122065
Isopropylbenzene	U		0.0345	0.100	1	08/28/2023 05:25	WG2122065
p-Isopropyltoluene	U		0.0932	0.200	1	08/28/2023 05:25	WG2122065
2-Butanone (MEK)	15.7		0.500	1.00	1	08/28/2023 05:25	WG2122065
Methylene Chloride	U		0.265	1.00	1	08/28/2023 05:25	WG2122065
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/28/2023 05:25	WG2122065
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/28/2023 05:25	WG2122065
Naphthalene	U		0.124	0.500	1	08/28/2023 05:25	WG2122065
n-Propylbenzene	U		0.0472	0.200	1	08/28/2023 05:25	WG2122065
Styrene	U		0.109	0.500	1	08/28/2023 05:25	WG2122065
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/28/2023 05:25	WG2122065
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/28/2023 05:25	WG2122065
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/28/2023 05:25	WG2122065
Tetrachloroethene	U		0.0280	0.100	1	08/28/2023 05:25	WG2122065
Toluene	0.405		0.0500	0.200	1	08/28/2023 05:25	WG2122065
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/28/2023 05:25	WG2122065
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/28/2023 05:25	WG2122065
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/28/2023 05:25	WG2122065
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/28/2023 05:25	WG2122065
Trichloroethene	0.620		0.0160	0.0400	1	08/28/2023 05:25	WG2122065
Trichlorofluoromethane	U		0.0200	0.100	1	08/28/2023 05:25	WG2122065
1,2,3-Trichloropropane	U		0.204	0.500	1	08/28/2023 05:25	WG2122065
1,2,4-Trimethylbenzene	0.115	J	0.0464	0.200	1	08/28/2023 05:25	WG2122065
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/28/2023 05:25	WG2122065
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/28/2023 05:25	WG2122065
Vinyl chloride	9.18		0.0273	0.100	1	08/28/2023 05:25	WG2122065
Xylenes, Total	0.524		0.191	0.260	1	08/28/2023 05:25	WG2122065
Ethyl Ether	U		0.0170	0.100	1	08/28/2023 05:25	WG2122065
Tetrahydrofuran	1.67		0.0900	0.500	1	08/28/2023 05:25	WG2122065
Iodomethane	U		0.242	0.500	1	08/28/2023 05:25	WG2122065
Allyl chloride	U		0.580	1.00	1	08/28/2023 05:25	WG2122065
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/28/2023 05:25	WG2122065
(S) Toluene-d8	*102*			*75.0-131*		*08/28/2023 05:25*	WG2122065
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*08/28/2023 05:25*	WG2122065
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*		*08/28/2023 05:25*	WG2122065

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	5.87	C3	0.548	1.00	1	08/28/2023 05:44	WG2122065
Acrylonitrile	U		0.0760	0.500	1	08/28/2023 05:44	WG2122065
Benzene	0.116		0.0160	0.0400	1	08/28/2023 05:44	WG2122065
Bromobenzene	U		0.0420	0.500	1	08/28/2023 05:44	WG2122065
Bromodichloromethane	U		0.0315	0.100	1	08/28/2023 05:44	WG2122065
Bromoform	U		0.239	1.00	1	08/28/2023 05:44	WG2122065
Bromomethane	U		0.148	0.500	1	08/28/2023 05:44	WG2122065
n-Butylbenzene	U		0.153	0.500	1	08/28/2023 05:44	WG2122065
sec-Butylbenzene	U		0.101	0.500	1	08/28/2023 05:44	WG2122065
tert-Butylbenzene	U		0.0620	0.200	1	08/28/2023 05:44	WG2122065
Carbon tetrachloride	U		0.0432	0.200	1	08/28/2023 05:44	WG2122065
Chlorobenzene	U		0.0229	0.100	1	08/28/2023 05:44	WG2122065
Chlorodibromomethane	U		0.0180	0.100	1	08/28/2023 05:44	WG2122065
Chloroethane	0.324	C5 J4	0.0432	0.200	1	08/28/2023 05:44	WG2122065
Chloroform	0.208		0.0166	0.100	1	08/28/2023 05:44	WG2122065
Chloromethane	U		0.0556	0.500	1	08/28/2023 05:44	WG2122065
2-Chlorotoluene	U		0.0368	0.100	1	08/28/2023 05:44	WG2122065
4-Chlorotoluene	U		0.0452	0.200	1	08/28/2023 05:44	WG2122065
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/28/2023 05:44	WG2122065
1,2-Dibromoethane	U		0.0210	0.100	1	08/28/2023 05:44	WG2122065
Dibromomethane	U		0.0400	0.200	1	08/28/2023 05:44	WG2122065
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/28/2023 05:44	WG2122065
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/28/2023 05:44	WG2122065
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/28/2023 05:44	WG2122065
Dichlorodifluoromethane	U		0.0327	0.100	1	08/28/2023 05:44	WG2122065
1,1-Dichloroethane	U		0.0230	0.100	1	08/28/2023 05:44	WG2122065
1,2-Dichloroethane	0.137		0.0190	0.100	1	08/28/2023 05:44	WG2122065
1,1-Dichloroethene	U		0.0200	0.100	1	08/28/2023 05:44	WG2122065
cis-1,2-Dichloroethene	9.54		0.0276	0.100	1	08/28/2023 05:44	WG2122065
trans-1,2-Dichloroethene	3.88		0.0572	0.200	1	08/28/2023 05:44	WG2122065
1,2-Dichloropropane	U		0.0508	0.200	1	08/28/2023 05:44	WG2122065
1,1-Dichloropropene	U		0.0280	0.100	1	08/28/2023 05:44	WG2122065
1,3-Dichloropropane	U		0.0700	0.200	1	08/28/2023 05:44	WG2122065
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/28/2023 05:44	WG2122065
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/28/2023 05:44	WG2122065
2,2-Dichloropropane	U		0.0317	0.100	1	08/28/2023 05:44	WG2122065
Di-isopropyl ether	U		0.0140	0.0400	1	08/28/2023 05:44	WG2122065
Ethylbenzene	0.282		0.0212	0.100	1	08/28/2023 05:44	WG2122065
Hexachloro-1,3-butadiene	U	C3	0.508	1.00	1	08/28/2023 05:44	WG2122065
Isopropylbenzene	0.102		0.0345	0.100	1	08/28/2023 05:44	WG2122065
p-Isopropyltoluene	U		0.0932	0.200	1	08/28/2023 05:44	WG2122065
2-Butanone (MEK)	U		0.500	1.00	1	08/28/2023 05:44	WG2122065
Methylene Chloride	U		0.265	1.00	1	08/28/2023 05:44	WG2122065
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/28/2023 05:44	WG2122065
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/28/2023 05:44	WG2122065
Naphthalene	U		0.124	0.500	1	08/28/2023 05:44	WG2122065
n-Propylbenzene	U		0.0472	0.200	1	08/28/2023 05:44	WG2122065
Styrene	U		0.109	0.500	1	08/28/2023 05:44	WG2122065
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/28/2023 05:44	WG2122065
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/28/2023 05:44	WG2122065
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/28/2023 05:44	WG2122065
Tetrachloroethene	0.689		0.0280	0.100	1	08/28/2023 05:44	WG2122065
Toluene	0.443		0.0500	0.200	1	08/28/2023 05:44	WG2122065
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/28/2023 05:44	WG2122065
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/28/2023 05:44	WG2122065
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/28/2023 05:44	WG2122065

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/28/2023 05:44	WG2122065
Trichloroethene	2.90		0.0160	0.0400	1	08/28/2023 05:44	WG2122065
Trichlorofluoromethane	U		0.0200	0.100	1	08/28/2023 05:44	WG2122065
1,2,3-Trichloropropane	U		0.204	0.500	1	08/28/2023 05:44	WG2122065
1,2,4-Trimethylbenzene	0.0670	J	0.0464	0.200	1	08/28/2023 05:44	WG2122065
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/28/2023 05:44	WG2122065
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/28/2023 05:44	WG2122065
Vinyl chloride	6.92		0.0273	0.100	1	08/28/2023 05:44	WG2122065
Xylenes, Total	1.18		0.191	0.260	1	08/28/2023 05:44	WG2122065
Ethyl Ether	U		0.0170	0.100	1	08/28/2023 05:44	WG2122065
Tetrahydrofuran	5.68		0.0900	0.500	1	08/28/2023 05:44	WG2122065
Iodomethane	U		0.242	0.500	1	08/28/2023 05:44	WG2122065
Allyl chloride	U		0.580	1.00	1	08/28/2023 05:44	WG2122065
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/28/2023 05:44	WG2122065
(S) Toluene-d8	*104*			*75.0-131*		*08/28/2023 05:44*	WG2122065
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*08/28/2023 05:44*	WG2122065
(S) 1,2-Dichloroethane-d4	*97.0*			*70.0-130*		*08/28/2023 05:44*	WG2122065

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	63.7	C5	0.548	1.00	1	08/23/2023 00:14	WG2119135
Acrylonitrile	U		0.0760	0.500	1	08/23/2023 00:14	WG2119135
Benzene	0.0210	J	0.0160	0.0400	1	08/23/2023 00:14	WG2119135
Bromobenzene	U		0.0420	0.500	1	08/23/2023 00:14	WG2119135
Bromodichloromethane	U		0.0315	0.100	1	08/23/2023 00:14	WG2119135
Bromoform	U		0.239	1.00	1	08/23/2023 00:14	WG2119135
Bromomethane	U		0.148	0.500	1	08/23/2023 00:14	WG2119135
n-Butylbenzene	U		0.153	0.500	1	08/23/2023 00:14	WG2119135
sec-Butylbenzene	U		0.101	0.500	1	08/23/2023 00:14	WG2119135
tert-Butylbenzene	U		0.0620	0.200	1	08/23/2023 00:14	WG2119135
Carbon tetrachloride	U		0.0432	0.200	1	08/23/2023 00:14	WG2119135
Chlorobenzene	U		0.0229	0.100	1	08/23/2023 00:14	WG2119135
Chlorodibromomethane	U		0.0180	0.100	1	08/23/2023 00:14	WG2119135
Chloroethane	U		0.0432	0.200	1	08/23/2023 00:14	WG2119135
Chloroform	U		0.0166	0.100	1	08/23/2023 00:14	WG2119135
Chloromethane	U		0.0556	0.500	1	08/23/2023 00:14	WG2119135
2-Chlorotoluene	U		0.0368	0.100	1	08/23/2023 00:14	WG2119135
4-Chlorotoluene	U		0.0452	0.200	1	08/23/2023 00:14	WG2119135
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/23/2023 00:14	WG2119135
1,2-Dibromoethane	U		0.0210	0.100	1	08/23/2023 00:14	WG2119135
Dibromomethane	U		0.0400	0.200	1	08/23/2023 00:14	WG2119135
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/23/2023 00:14	WG2119135
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/23/2023 00:14	WG2119135
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/23/2023 00:14	WG2119135
Dichlorodifluoromethane	U	C3 J3	0.0327	0.100	1	08/23/2023 00:14	WG2119135
1,1-Dichloroethane	U		0.0230	0.100	1	08/23/2023 00:14	WG2119135
1,2-Dichloroethane	U		0.0190	0.100	1	08/23/2023 00:14	WG2119135
1,1-Dichloroethene	0.549		0.0200	0.100	1	08/23/2023 00:14	WG2119135
cis-1,2-Dichloroethene	0.319		0.0276	0.100	1	08/23/2023 00:14	WG2119135
trans-1,2-Dichloroethene	U		0.0572	0.200	1	08/23/2023 00:14	WG2119135
1,2-Dichloropropane	U		0.0508	0.200	1	08/23/2023 00:14	WG2119135
1,1-Dichloropropene	U		0.0280	0.100	1	08/23/2023 00:14	WG2119135
1,3-Dichloropropane	U		0.0700	0.200	1	08/23/2023 00:14	WG2119135
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/23/2023 00:14	WG2119135
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/23/2023 00:14	WG2119135
2,2-Dichloropropane	U		0.0317	0.100	1	08/23/2023 00:14	WG2119135
Di-isopropyl ether	U		0.0140	0.0400	1	08/23/2023 00:14	WG2119135
Ethylbenzene	0.0870	J	0.0212	0.100	1	08/23/2023 00:14	WG2119135
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/23/2023 00:14	WG2119135
Isopropylbenzene	U		0.0345	0.100	1	08/23/2023 00:14	WG2119135
p-Isopropyltoluene	U		0.0932	0.200	1	08/23/2023 00:14	WG2119135
2-Butanone (MEK)	U		0.500	1.00	1	08/23/2023 00:14	WG2119135
Methylene Chloride	U		0.265	1.00	1	08/23/2023 00:14	WG2119135
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/23/2023 00:14	WG2119135
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/23/2023 00:14	WG2119135
Naphthalene	U		0.124	0.500	1	08/23/2023 00:14	WG2119135
n-Propylbenzene	U		0.0472	0.200	1	08/23/2023 00:14	WG2119135
Styrene	U		0.109	0.500	1	08/23/2023 00:14	WG2119135
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/23/2023 00:14	WG2119135
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/23/2023 00:14	WG2119135
1,1,2-Trichlorotrifluoroethane	U	J3	0.0270	0.100	1	08/23/2023 00:14	WG2119135
Tetrachloroethene	U		0.0280	0.100	1	08/23/2023 00:14	WG2119135
Toluene	0.116	J	0.0500	0.200	1	08/23/2023 00:14	WG2119135
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/23/2023 00:14	WG2119135
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/23/2023 00:14	WG2119135
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/23/2023 00:14	WG2119135

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/23/2023 00:14	WG2119135
Trichloroethene	0.0480		0.0160	0.0400	1	08/23/2023 00:14	WG2119135
Trichlorofluoromethane	U		0.0200	0.100	1	08/23/2023 00:14	WG2119135
1,2,3-Trichloropropane	U		0.204	0.500	1	08/23/2023 00:14	WG2119135
1,2,4-Trimethylbenzene	0.157	J	0.0464	0.200	1	08/23/2023 00:14	WG2119135
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/23/2023 00:14	WG2119135
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/23/2023 00:14	WG2119135
Vinyl chloride	2.51		0.0273	0.100	1	08/23/2023 00:14	WG2119135
Xylenes, Total	0.564		0.191	0.260	1	08/23/2023 00:14	WG2119135
Ethyl Ether	U		0.0170	0.100	1	08/23/2023 00:14	WG2119135
Tetrahydrofuran	3.50		0.0900	0.500	1	08/23/2023 00:14	WG2119135
Iodomethane	U		0.242	0.500	1	08/23/2023 00:14	WG2119135
Allyl chloride	U		0.580	1.00	1	08/23/2023 00:14	WG2119135
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/23/2023 00:14	WG2119135
(S) Toluene-d8	*105*			*75.0-131*		*08/23/2023 00:14*	WG2119135
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*08/23/2023 00:14*	WG2119135
(S) 1,2-Dichloroethane-d4	*95.8*			*70.0-130*		*08/23/2023 00:14*	WG2119135

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	4.72	C5	0.548	1.00	1	08/23/2023 00:33	WG2119135
Acrylonitrile	0.746		0.0760	0.500	1	08/23/2023 00:33	WG2119135
Benzene	0.130		0.0160	0.0400	1	08/23/2023 00:33	WG2119135
Bromobenzene	U		0.0420	0.500	1	08/23/2023 00:33	WG2119135
Bromodichloromethane	U		0.0315	0.100	1	08/23/2023 00:33	WG2119135
Bromoform	U		0.239	1.00	1	08/23/2023 00:33	WG2119135
Bromomethane	U		0.148	0.500	1	08/23/2023 00:33	WG2119135
n-Butylbenzene	U		0.153	0.500	1	08/23/2023 00:33	WG2119135
sec-Butylbenzene	U		0.101	0.500	1	08/23/2023 00:33	WG2119135
tert-Butylbenzene	U		0.0620	0.200	1	08/23/2023 00:33	WG2119135
Carbon tetrachloride	U		0.0432	0.200	1	08/23/2023 00:33	WG2119135
Chlorobenzene	U		0.0229	0.100	1	08/23/2023 00:33	WG2119135
Chlorodibromomethane	U		0.0180	0.100	1	08/23/2023 00:33	WG2119135
Chloroethane	U		0.0432	0.200	1	08/23/2023 00:33	WG2119135
Chloroform	U		0.0166	0.100	1	08/23/2023 00:33	WG2119135
Chloromethane	U		0.0556	0.500	1	08/23/2023 00:33	WG2119135
2-Chlorotoluene	U		0.0368	0.100	1	08/23/2023 00:33	WG2119135
4-Chlorotoluene	U		0.0452	0.200	1	08/23/2023 00:33	WG2119135
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/23/2023 00:33	WG2119135
1,2-Dibromoethane	U		0.0210	0.100	1	08/23/2023 00:33	WG2119135
Dibromomethane	U		0.0400	0.200	1	08/23/2023 00:33	WG2119135
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/23/2023 00:33	WG2119135
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/23/2023 00:33	WG2119135
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/23/2023 00:33	WG2119135
Dichlorodifluoromethane	U	C3 J3	0.0327	0.100	1	08/23/2023 00:33	WG2119135
1,1-Dichloroethane	U		0.0230	0.100	1	08/23/2023 00:33	WG2119135
1,2-Dichloroethane	U		0.0190	0.100	1	08/23/2023 00:33	WG2119135
1,1-Dichloroethene	0.282		0.0200	0.100	1	08/23/2023 00:33	WG2119135
cis-1,2-Dichloroethene	22.1		0.0276	0.100	1	08/23/2023 00:33	WG2119135
trans-1,2-Dichloroethene	0.190	J	0.0572	0.200	1	08/23/2023 00:33	WG2119135
1,2-Dichloropropane	U		0.0508	0.200	1	08/23/2023 00:33	WG2119135
1,1-Dichloropropene	U		0.0280	0.100	1	08/23/2023 00:33	WG2119135
1,3-Dichloropropane	U		0.0700	0.200	1	08/23/2023 00:33	WG2119135
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/23/2023 00:33	WG2119135
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/23/2023 00:33	WG2119135
2,2-Dichloropropane	U		0.0317	0.100	1	08/23/2023 00:33	WG2119135
Di-isopropyl ether	U		0.0140	0.0400	1	08/23/2023 00:33	WG2119135
Ethylbenzene	0.318		0.0212	0.100	1	08/23/2023 00:33	WG2119135
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/23/2023 00:33	WG2119135
Isopropylbenzene	U		0.0345	0.100	1	08/23/2023 00:33	WG2119135
p-Isopropyltoluene	U		0.0932	0.200	1	08/23/2023 00:33	WG2119135
2-Butanone (MEK)	U		0.500	1.00	1	08/23/2023 00:33	WG2119135
Methylene Chloride	U		0.265	1.00	1	08/23/2023 00:33	WG2119135
4-Methyl-2-pentanone (MIBK)	0.635	J	0.400	1.00	1	08/23/2023 00:33	WG2119135
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/23/2023 00:33	WG2119135
Naphthalene	U		0.124	0.500	1	08/23/2023 00:33	WG2119135
n-Propylbenzene	U		0.0472	0.200	1	08/23/2023 00:33	WG2119135
Styrene	U		0.109	0.500	1	08/23/2023 00:33	WG2119135
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/23/2023 00:33	WG2119135
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/23/2023 00:33	WG2119135
1,1,2-Trichlorotrifluoroethane	U	J3	0.0270	0.100	1	08/23/2023 00:33	WG2119135
Tetrachloroethene	1.55		0.0280	0.100	1	08/23/2023 00:33	WG2119135
Toluene	0.121	J	0.0500	0.200	1	08/23/2023 00:33	WG2119135
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/23/2023 00:33	WG2119135
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/23/2023 00:33	WG2119135
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/23/2023 00:33	WG2119135

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/23/2023 00:33	WG2119135
Trichloroethene	1.45		0.0160	0.0400	1	08/23/2023 00:33	WG2119135
Trichlorofluoromethane	U		0.0200	0.100	1	08/23/2023 00:33	WG2119135
1,2,3-Trichloropropane	U		0.204	0.500	1	08/23/2023 00:33	WG2119135
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	08/23/2023 00:33	WG2119135
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/23/2023 00:33	WG2119135
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/23/2023 00:33	WG2119135
Vinyl chloride	66.1		0.0273	0.100	1	08/23/2023 00:33	WG2119135
Xylenes, Total	1.32		0.191	0.260	1	08/23/2023 00:33	WG2119135
Ethyl Ether	U		0.0170	0.100	1	08/23/2023 00:33	WG2119135
Tetrahydrofuran	2.11		0.0900	0.500	1	08/23/2023 00:33	WG2119135
Iodomethane	U		0.242	0.500	1	08/23/2023 00:33	WG2119135
Allyl chloride	U		0.580	1.00	1	08/23/2023 00:33	WG2119135
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/23/2023 00:33	WG2119135
(S) Toluene-d8	*105*			*75.0-131*		*08/23/2023 00:33*	WG2119135
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*08/23/2023 00:33*	WG2119135
(S) 1,2-Dichloroethane-d4	*98.6*			*70.0-130*		*08/23/2023 00:33*	WG2119135

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	41000		379	1000	1	08/18/2023 00:31	WG2116143
Nitrate	U		48.0	100	1	08/18/2023 00:31	WG2116143
Sulfate	10200		594	5000	1	08/18/2023 00:31	WG2116143

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	10300		102	1000	1	08/23/2023 21:35	WG2117715

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	7040		2.87	6.78	10	08/24/2023 12:09	WG2119823
Ethane	1.61		0.296	1.29	1	08/23/2023 11:43	WG2118976
Ethene	27.3		0.422	1.27	1	08/23/2023 11:43	WG2118976

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.52	C5	0.548	1.00	1	08/23/2023 00:52	WG2119135
Acrylonitrile	U		0.0760	0.500	1	08/23/2023 00:52	WG2119135
Benzene	0.0240	J	0.0160	0.0400	1	08/23/2023 00:52	WG2119135
Bromobenzene	U		0.0420	0.500	1	08/23/2023 00:52	WG2119135
Bromodichloromethane	U		0.0315	0.100	1	08/23/2023 00:52	WG2119135
Bromoform	U		0.239	1.00	1	08/23/2023 00:52	WG2119135
Bromomethane	U		0.148	0.500	1	08/23/2023 00:52	WG2119135
n-Butylbenzene	U		0.153	0.500	1	08/23/2023 00:52	WG2119135
sec-Butylbenzene	U		0.101	0.500	1	08/23/2023 00:52	WG2119135
tert-Butylbenzene	U		0.0620	0.200	1	08/23/2023 00:52	WG2119135
Carbon tetrachloride	U		0.0432	0.200	1	08/23/2023 00:52	WG2119135
Chlorobenzene	U		0.0229	0.100	1	08/23/2023 00:52	WG2119135
Chlorodibromomethane	U		0.0180	0.100	1	08/23/2023 00:52	WG2119135
Chloroethane	U		0.0432	0.200	1	08/23/2023 00:52	WG2119135
Chloroform	U		0.0166	0.100	1	08/23/2023 00:52	WG2119135
Chloromethane	U		0.0556	0.500	1	08/23/2023 00:52	WG2119135
2-Chlorotoluene	U		0.0368	0.100	1	08/23/2023 00:52	WG2119135
4-Chlorotoluene	U		0.0452	0.200	1	08/23/2023 00:52	WG2119135
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/23/2023 00:52	WG2119135
1,2-Dibromoethane	U		0.0210	0.100	1	08/23/2023 00:52	WG2119135
Dibromomethane	U		0.0400	0.200	1	08/23/2023 00:52	WG2119135
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/23/2023 00:52	WG2119135
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/23/2023 00:52	WG2119135
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/23/2023 00:52	WG2119135
Dichlorodifluoromethane	U	C3 J3	0.0327	0.100	1	08/23/2023 00:52	WG2119135
1,1-Dichloroethane	0.0500	J	0.0230	0.100	1	08/23/2023 00:52	WG2119135
1,2-Dichloroethane	U		0.0190	0.100	1	08/23/2023 00:52	WG2119135
1,1-Dichloroethene	0.226		0.0200	0.100	1	08/23/2023 00:52	WG2119135
cis-1,2-Dichloroethene	76.1		0.0276	0.100	1	08/23/2023 00:52	WG2119135
trans-1,2-Dichloroethene	0.0720	J	0.0572	0.200	1	08/23/2023 00:52	WG2119135
1,2-Dichloropropane	U		0.0508	0.200	1	08/23/2023 00:52	WG2119135
1,1-Dichloropropene	U		0.0280	0.100	1	08/23/2023 00:52	WG2119135
1,3-Dichloropropane	U		0.0700	0.200	1	08/23/2023 00:52	WG2119135
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/23/2023 00:52	WG2119135
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/23/2023 00:52	WG2119135

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
2,2-Dichloropropane	U		0.0317	0.100	1	08/23/2023 00:52	WG2119135
Di-isopropyl ether	U		0.0140	0.0400	1	08/23/2023 00:52	WG2119135
Ethylbenzene	0.128		0.0212	0.100	1	08/23/2023 00:52	WG2119135
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/23/2023 00:52	WG2119135
Isopropylbenzene	U		0.0345	0.100	1	08/23/2023 00:52	WG2119135
p-Isopropyltoluene	U		0.0932	0.200	1	08/23/2023 00:52	WG2119135
2-Butanone (MEK)	U		0.500	1.00	1	08/23/2023 00:52	WG2119135
Methylene Chloride	U		0.265	1.00	1	08/23/2023 00:52	WG2119135
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/23/2023 00:52	WG2119135
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/23/2023 00:52	WG2119135
Naphthalene	U		0.124	0.500	1	08/23/2023 00:52	WG2119135
n-Propylbenzene	U		0.0472	0.200	1	08/23/2023 00:52	WG2119135
Styrene	U		0.109	0.500	1	08/23/2023 00:52	WG2119135
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/23/2023 00:52	WG2119135
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/23/2023 00:52	WG2119135
1,1,2-Trichlorotrifluoroethane	U	J3	0.0270	0.100	1	08/23/2023 00:52	WG2119135
Tetrachloroethene	U		0.0280	0.100	1	08/23/2023 00:52	WG2119135
Toluene	0.481		0.0500	0.200	1	08/23/2023 00:52	WG2119135
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/23/2023 00:52	WG2119135
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/23/2023 00:52	WG2119135
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/23/2023 00:52	WG2119135
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/23/2023 00:52	WG2119135
Trichloroethene	0.250		0.0160	0.0400	1	08/23/2023 00:52	WG2119135
Trichlorofluoromethane	U		0.0200	0.100	1	08/23/2023 00:52	WG2119135
1,2,3-Trichloropropane	U		0.204	0.500	1	08/23/2023 00:52	WG2119135
1,2,4-Trimethylbenzene	0.106	J	0.0464	0.200	1	08/23/2023 00:52	WG2119135
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/23/2023 00:52	WG2119135
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/23/2023 00:52	WG2119135
Vinyl chloride	136	J4	0.137	0.500	5	08/27/2023 15:06	WG2119336
Xylenes, Total	0.707		0.191	0.260	1	08/23/2023 00:52	WG2119135
Ethyl Ether	U		0.0170	0.100	1	08/23/2023 00:52	WG2119135
Tetrahydrofuran	4.00		0.0900	0.500	1	08/23/2023 00:52	WG2119135
Iodomethane	U		0.242	0.500	1	08/23/2023 00:52	WG2119135
Allyl chloride	U		0.580	1.00	1	08/23/2023 00:52	WG2119135
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/23/2023 00:52	WG2119135
(S) Toluene-d8	*105*			*75.0-131*		*08/23/2023 00:52*	WG2119135
(S) Toluene-d8	*102*			*75.0-131*		*08/27/2023 15:06*	WG2119336
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*08/23/2023 00:52*	WG2119135
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*08/27/2023 15:06*	WG2119336
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*		*08/23/2023 00:52*	WG2119135
(S) 1,2-Dichloroethane-d4	*93.7*			*70.0-130*		*08/27/2023 15:06*	WG2119336

Method Blank (MB)

(MB) R3962765-1 08/17/23 09:42

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000
Nitrate	U		48.0	100
Sulfate	U		594	5000

L1646977-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1646977-02 08/17/23 12:02 • (DUP) R3962765-5 08/17/23 18:14

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	50600	51300	1	1.47		15
Nitrate	U	U	1	0.000		15
Sulfate	39000	39400	1	1.15		15

L1647041-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1647041-01 08/17/23 22:25 • (DUP) R3962765-8 08/17/23 22:38

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	385000	385000	1	0.0157	E	15
Nitrate	3440	3420	1	0.426		15
Sulfate	337000	338000	1	0.319	E	15

Laboratory Control Sample (LCS)

(LCS) R3962765-2 08/17/23 09:54

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39100	97.7	80.0-120	
Nitrate	8000	7720	96.5	80.0-120	
Sulfate	40000	38800	97.1	80.0-120	

L1647041-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1647041-01 08/17/23 22:25 • (MS) R3962765-9 08/17/23 23:16

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	385000	416000	61.8	1	80.0-120	E V
Nitrate	5000	3440	8250	96.3	1	80.0-120	
Sulfate	50000	337000	376000	77.9	1	80.0-120	E V

L1646977-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646977-02 08/17/23 12:02 • (MS) R3962765-3 08/17/23 17:23 • (MSD) R3962765-4 08/17/23 17:36

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	50600	98200	97400	95.3	93.7	1	80.0-120			0.834	15
Nitrate	5000	U	5000	4840	100	96.8	1	80.0-120			3.19	15
Sulfate	50000	39000	88000	87800	98.1	97.6	1	80.0-120			0.312	15

Method Blank (MB)

(MB) R3963657-1 08/18/23 00:06

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Chloride	U		379	1000
Nitrate	U		48.0	100
Sulfate	U		594	5000

L1647036-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1647036-05 08/18/23 00:31 • (DUP) R3963657-5 08/18/23 01:09

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	41000	40800	1	0.425		15
Nitrate	U	U	1	0.000		15
Sulfate	10200	10300	1	1.19		15

L1647102-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1647102-07 08/18/23 04:18 • (DUP) R3963657-6 08/18/23 04:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	104000	103000	1	0.908		15
Nitrate	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3963657-2 08/18/23 00:19

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Chloride	40000	39100	97.8	80.0-120	
Nitrate	8000	7670	95.9	80.0-120	
Sulfate	40000	38600	96.5	80.0-120	

L1647036-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1647036-05 08/18/23 00:31 • (MS) R3963657-3 08/18/23 00:44 • (MSD) R3963657-4 08/18/23 00:56

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	41000	88400	88400	94.8	94.9	1	80.0-120			0.0174	15
Nitrate	5000	U	4930	4950	98.5	99.0	1	80.0-120			0.488	15
Sulfate	50000	10200	58500	58600	96.6	96.8	1	80.0-120			0.126	15

L1647102-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1647102-07 08/18/23 04:18 • (MS) R3963657-7 08/18/23 04:43

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	104000	146000	84.9	1	80.0-120	
Nitrate	5000	U	4770	95.5	1	80.0-120	
Sulfate	50000	U	47000	94.1	1	80.0-120	

Method Blank (MB)

(MB) R3964758-2 08/23/23 15:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	334	J	102	1000

Laboratory Control Sample (LCS)

(LCS) R3964758-1 08/23/23 15:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC (Total Organic Carbon)	25000	25700	103	85.0-115	

L1647036-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1647036-05 08/23/23 21:35 • (MS) R3964758-3 08/23/23 21:59 • (MSD) R3964758-4 08/23/23 22:22

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	25000	10300	36800	37400	106	108	1	80.0-120			1.64	20

Method Blank (MB)

(MB) R3964444-2 08/23/23 11:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

L1647161-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1647161-02 08/23/23 12:11 • (DUP) R3964444-3 08/23/23 12:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

L1647220-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1647220-14 08/23/23 13:51 • (DUP) R3964444-4 08/23/23 13:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3964444-1 08/23/23 11:14 • (LCSD) R3964444-5 08/23/23 13:58

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Ethane	129	115	114	89.1	88.4	85.0-115			0.873	20
Ethene	127	115	115	90.6	90.6	85.0-115			0.000	20

Method Blank (MB)

(MB) R3964983-2 08/24/23 11:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Methane	3.26		0.287	0.678

L1647190-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1647190-07 08/24/23 13:29 • (DUP) R3964983-3 08/24/23 13:32

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	U	U	1	0.000		20

L1647275-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1647275-04 08/24/23 14:01 • (DUP) R3964983-4 08/24/23 14:10

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	6370	6740	1	5.64		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3964983-1 08/24/23 11:11 • (LCSD) R3964983-5 08/24/23 14:13

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	67.8	65.5	70.2	96.6	104	85.0-115			6.93	20

Method Blank (MB)

(MB) R3964155-3 08/22/23 20:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		0.548	1.00
Acrylonitrile	U		0.0760	0.500
Benzene	U		0.0160	0.0400
Bromobenzene	U		0.0420	0.500
Bromodichloromethane	U		0.0315	0.100
Bromoform	U		0.239	1.00
Bromomethane	U		0.148	0.500
n-Butylbenzene	U		0.153	0.500
sec-Butylbenzene	U		0.101	0.500
tert-Butylbenzene	U		0.0620	0.200
Carbon tetrachloride	U		0.0432	0.200
Chlorobenzene	U		0.0229	0.100
Chlorodibromomethane	U		0.0180	0.100
Chloroethane	U		0.0432	0.200
Chloroform	U		0.0166	0.100
Chloromethane	U		0.0556	0.500
2-Chlorotoluene	U		0.0368	0.100
4-Chlorotoluene	U		0.0452	0.200
1,2-Dibromo-3-Chloropropane	U		0.204	1.00
1,2-Dibromoethane	U		0.0210	0.100
Dibromomethane	U		0.0400	0.200
1,2-Dichlorobenzene	U		0.0580	0.200
1,3-Dichlorobenzene	U		0.0680	0.200
1,4-Dichlorobenzene	U		0.0788	0.200
Dichlorodifluoromethane	U		0.0327	0.100
1,1-Dichloroethane	U		0.0230	0.100
1,2-Dichloroethane	U		0.0190	0.100
1,1-Dichloroethene	U		0.0200	0.100
cis-1,2-Dichloroethene	U		0.0276	0.100
trans-1,2-Dichloroethene	U		0.0572	0.200
1,2-Dichloropropane	U		0.0508	0.200
1,1-Dichloropropene	U		0.0280	0.100
1,3-Dichloropropane	U		0.0700	0.200
cis-1,3-Dichloropropene	U		0.0271	0.100
trans-1,3-Dichloropropene	U		0.0612	0.200
2,2-Dichloropropane	U		0.0317	0.100
Di-isopropyl ether	U		0.0140	0.0400
Ethylbenzene	U		0.0212	0.100
Hexachloro-1,3-butadiene	U		0.508	1.00
Isopropylbenzene	U		0.0345	0.100

Method Blank (MB)

(MB) R3964155-3 08/22/23 20:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
p-Isopropyltoluene	U		0.0932	0.200
2-Butanone (MEK)	U		0.500	1.00
Methylene Chloride	U		0.265	1.00
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00
Methyl tert-butyl ether	U		0.0118	0.0400
Naphthalene	U		0.124	0.500
n-Propylbenzene	U		0.0472	0.200
Styrene	U		0.109	0.500
1,1,1,2-Tetrachloroethane	U		0.0200	0.100
1,1,2,2-Tetrachloroethane	U		0.0156	0.100
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100
Tetrachloroethene	U		0.0280	0.100
Toluene	U		0.0500	0.200
1,2,3-Trichlorobenzene	U		0.0250	0.500
1,2,4-Trichlorobenzene	U		0.193	0.500
1,1,1-Trichloroethane	U		0.0110	0.100
1,1,2-Trichloroethane	U		0.0353	0.100
Trichloroethene	U		0.0160	0.0400
Trichlorofluoromethane	U		0.0200	0.100
1,2,3-Trichloropropane	U		0.204	0.500
1,2,4-Trimethylbenzene	U		0.0464	0.200
1,2,3-Trimethylbenzene	U		0.0460	0.200
1,3,5-Trimethylbenzene	U		0.0432	0.200
Vinyl chloride	U		0.0273	0.100
Xylenes, Total	U		0.191	0.260
Ethyl Ether	U		0.0170	0.100
Tetrahydrofuran	U		0.0900	0.500
Iodomethane	U		0.242	0.500
Allyl chloride	U		0.580	1.00
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200
(S) Toluene-d8	*105*			*75.0-131*
(S) 4-Bromofluorobenzene	*108*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*96.6*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3964155-1 08/22/23 19:19 • (LCSD) R3964155-2 08/22/23 19:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	31.0	31.7	124	127	10.0-160			2.23	31
Acrylonitrile	25.0	30.0	31.2	120	125	45.0-153			3.92	22
Benzene	5.00	5.38	5.87	108	117	70.0-123			8.71	20
Bromobenzene	5.00	5.08	5.33	102	107	73.0-121			4.80	20
Bromodichloromethane	5.00	5.46	5.74	109	115	73.0-121			5.00	20
Bromoform	5.00	5.14	5.41	103	108	64.0-132			5.12	20
Bromomethane	5.00	5.03	5.22	101	104	56.0-147			3.71	20
n-Butylbenzene	5.00	5.15	5.71	103	114	68.0-135			10.3	20
sec-Butylbenzene	5.00	5.16	5.65	103	113	74.0-130			9.07	20
tert-Butylbenzene	5.00	5.05	5.43	101	109	75.0-127			7.25	20
Carbon tetrachloride	5.00	5.07	5.83	101	117	66.0-128			13.9	20
Chlorobenzene	5.00	5.27	5.66	105	113	76.0-128			7.14	20
Chlorodibromomethane	5.00	5.54	6.03	111	121	74.0-127			8.47	20
Chloroethane	5.00	5.32	6.03	106	121	61.0-134			12.5	20
Chloroform	5.00	5.31	5.56	106	111	72.0-123			4.60	20
Chloromethane	5.00	4.58	5.06	91.6	101	51.0-138			9.96	20
2-Chlorotoluene	5.00	5.05	5.20	101	104	75.0-124			2.93	20
4-Chlorotoluene	5.00	4.88	5.13	97.6	103	75.0-124			5.00	20
1,2-Dibromo-3-Chloropropane	5.00	4.68	4.83	93.6	96.6	59.0-130			3.15	20
1,2-Dibromoethane	5.00	5.64	5.68	113	114	74.0-128			0.707	20
Dibromomethane	5.00	5.49	5.51	110	110	75.0-122			0.364	20
1,2-Dichlorobenzene	5.00	5.18	5.35	104	107	76.0-124			3.23	20
1,3-Dichlorobenzene	5.00	4.96	5.29	99.2	106	76.0-125			6.44	20
1,4-Dichlorobenzene	5.00	5.25	5.54	105	111	77.0-121			5.38	20
Dichlorodifluoromethane	5.00	3.41	4.36	68.2	87.2	43.0-156		J3	24.5	20
1,1-Dichloroethane	5.00	5.40	5.80	108	116	70.0-127			7.14	20
1,2-Dichloroethane	5.00	4.64	4.87	92.8	97.4	65.0-131			4.84	20
1,1-Dichloroethene	5.00	4.87	5.60	97.4	112	65.0-131			13.9	20
cis-1,2-Dichloroethene	5.00	5.44	5.98	109	120	73.0-125			9.46	20
trans-1,2-Dichloroethene	5.00	5.31	5.87	106	117	71.0-125			10.0	20
1,2-Dichloropropane	5.00	5.69	5.90	114	118	74.0-125			3.62	20
1,1-Dichloropropene	5.00	5.36	6.04	107	121	73.0-125			11.9	20
1,3-Dichloropropane	5.00	5.50	5.64	110	113	80.0-125			2.51	20
cis-1,3-Dichloropropene	5.00	5.53	5.67	111	113	76.0-127			2.50	20
trans-1,3-Dichloropropene	5.00	5.35	5.45	107	109	73.0-127			1.85	20
2,2-Dichloropropane	5.00	5.47	6.09	109	122	59.0-135			10.7	20
Di-isopropyl ether	5.00	5.20	5.56	104	111	60.0-136			6.69	20
Ethylbenzene	5.00	5.44	5.86	109	117	74.0-126			7.43	20
Hexachloro-1,3-butadiene	5.00	5.08	5.76	102	115	57.0-150			12.5	20
Isopropylbenzene	5.00	5.31	5.79	106	116	72.0-127			8.65	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3964155-1 08/22/23 19:19 • (LCSD) R3964155-2 08/22/23 19:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
p-Isopropyltoluene	5.00	5.15	5.66	103	113	72.0-133			9.44	20
2-Butanone (MEK)	25.0	27.9	28.7	112	115	30.0-160			2.83	24
Methylene Chloride	5.00	5.38	5.59	108	112	68.0-123			3.83	20
4-Methyl-2-pentanone (MIBK)	25.0	27.2	27.6	109	110	56.0-143			1.46	20
Methyl tert-butyl ether	5.00	5.03	5.38	101	108	66.0-132			6.72	20
Naphthalene	5.00	4.63	4.79	92.6	95.8	59.0-130			3.40	20
n-Propylbenzene	5.00	4.98	5.09	99.6	102	74.0-126			2.18	20
Styrene	5.00	5.25	5.27	105	105	72.0-127			0.380	20
1,1,1,2-Tetrachloroethane	5.00	5.24	5.57	105	111	74.0-129			6.11	20
1,1,2,2-Tetrachloroethane	5.00	5.14	5.34	103	107	68.0-128			3.82	20
1,1,2-Trichlorotrifluoroethane	5.00	4.67	5.73	93.4	115	61.0-139		J3	20.4	20
Tetrachloroethene	5.00	5.64	6.22	113	124	70.0-136			9.78	20
Toluene	5.00	5.50	5.94	110	119	75.0-121			7.69	20
1,2,3-Trichlorobenzene	5.00	5.04	5.41	101	108	59.0-139			7.08	20
1,2,4-Trichlorobenzene	5.00	5.27	5.49	105	110	62.0-137			4.09	20
1,1,1-Trichloroethane	5.00	5.24	5.91	105	118	69.0-126			12.0	20
1,1,2-Trichloroethane	5.00	5.72	5.95	114	119	78.0-123			3.94	20
Trichloroethene	5.00	5.44	5.97	109	119	76.0-126			9.29	20
Trichlorofluoromethane	5.00	4.35	5.01	87.0	100	61.0-142			14.1	20
1,2,3-Trichloropropane	5.00	4.73	4.71	94.6	94.2	67.0-129			0.424	20
1,2,4-Trimethylbenzene	5.00	5.12	5.40	102	108	70.0-126			5.32	20
1,2,3-Trimethylbenzene	5.00	5.04	5.33	101	107	74.0-124			5.59	20
1,3,5-Trimethylbenzene	5.00	5.12	5.51	102	110	73.0-127			7.34	20
Vinyl chloride	5.00	5.10	5.66	102	113	63.0-134			10.4	20
Xylenes, Total	15.0	16.0	17.4	107	116	72.0-127			8.38	20
Ethyl Ether	5.00	5.33	5.59	107	112	64.0-137			4.76	20
Tetrahydrofuran	5.00	4.99	4.97	99.8	99.4	37.0-146			0.402	24
Iodomethane	25.0	24.4	27.0	97.6	108	74.0-134			10.1	20
Allyl chloride	25.0	28.2	31.5	113	126	70.0-131			11.1	20
Trans-1,4-Dichloro-2-butene	5.00	4.72	4.91	94.4	98.2	45.0-143			3.95	20
(S) Toluene-d8				*106*	*107*	*75.0-131*				
(S) 4-Bromofluorobenzene				*110*	*110*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*94.8*	*94.8*	*70.0-130*				

L1647953-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1647953-03 08/22/23 22:37 • (MS) R3964155-4 08/23/23 04:59 • (MSD) R3964155-5 08/23/23 05:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	U	34.8	36.7	139	147	1	10.0-160			5.31	40
Acrylonitrile	25.0	U	35.4	33.6	142	134	1	10.0-160			5.22	40
Benzene	5.00	U	7.06	6.80	141	136	1	10.0-149			3.75	37
Bromobenzene	5.00	U	6.59	6.43	132	129	1	10.0-156			2.46	38
Bromodichloromethane	5.00	U	7.22	6.87	144	137	1	10.0-143	J5		4.97	37
Bromoform	5.00	U	6.91	6.33	138	127	1	10.0-146			8.76	36
Bromomethane	5.00	U	6.63	6.51	133	130	1	10.0-149			1.83	38
n-Butylbenzene	5.00	U	7.60	6.86	152	137	1	10.0-160			10.2	40
sec-Butylbenzene	5.00	U	6.90	6.51	138	130	1	10.0-159			5.82	39
tert-Butylbenzene	5.00	U	6.73	6.54	135	131	1	10.0-156			2.86	39
Carbon tetrachloride	5.00	U	7.72	7.25	154	145	1	10.0-145	J5		6.28	37
Chlorobenzene	5.00	U	6.89	6.47	138	129	1	10.0-152			6.29	39
Chlorodibromomethane	5.00	U	7.18	6.82	144	136	1	10.0-146			5.14	37
Chloroethane	5.00	U	7.77	7.51	155	150	1	10.0-146	J5	J5	3.40	40
Chloroform	5.00	U	6.81	6.52	136	130	1	10.0-146			4.35	37
Chloromethane	5.00	U	6.72	6.21	134	124	1	10.0-159			7.89	37
2-Chlorotoluene	5.00	U	6.65	6.50	133	130	1	10.0-159			2.28	38
4-Chlorotoluene	5.00	U	6.37	6.11	127	122	1	10.0-155			4.17	39
1,2-Dibromo-3-Chloropropane	5.00	U	6.27	5.90	125	118	1	10.0-151			6.08	39
1,2-Dibromoethane	5.00	U	7.20	6.90	144	138	1	10.0-148			4.26	34
Dibromomethane	5.00	U	6.96	6.50	139	130	1	10.0-147			6.84	35
1,2-Dichlorobenzene	5.00	U	6.69	6.22	134	124	1	10.0-155			7.28	37
1,3-Dichlorobenzene	5.00	U	6.69	6.14	134	123	1	10.0-153			8.57	38
1,4-Dichlorobenzene	5.00	U	6.91	4.70	138	94.0	1	10.0-151		J3	38.1	38
Dichlorodifluoromethane	5.00	U	5.98	5.85	120	117	1	10.0-160			2.20	35
1,1-Dichloroethane	5.00	U	7.16	6.81	143	136	1	10.0-147			5.01	37
1,2-Dichloroethane	5.00	U	5.99	5.62	120	112	1	10.0-148			6.37	35
1,1-Dichloroethene	5.00	U	7.22	6.95	144	139	1	10.0-155			3.81	37
cis-1,2-Dichloroethene	5.00	U	7.45	7.06	149	141	1	10.0-149			5.38	37
trans-1,2-Dichloroethene	5.00	U	7.50	7.14	150	143	1	10.0-150			4.92	37
1,2-Dichloropropane	5.00	U	7.25	6.88	145	138	1	10.0-148			5.24	37
1,1-Dichloropropene	5.00	U	7.76	7.51	155	150	1	10.0-153	J5		3.27	35
1,3-Dichloropropane	5.00	U	6.80	6.32	136	126	1	10.0-154			7.32	35
cis-1,3-Dichloropropene	5.00	U	7.27	6.86	145	137	1	10.0-151			5.80	37
trans-1,3-Dichloropropene	5.00	U	6.85	6.58	137	132	1	10.0-148			4.02	37
2,2-Dichloropropane	5.00	U	8.14	7.32	163	146	1	10.0-138	J5	J5	10.6	36
Di-isopropyl ether	5.00	U	6.84	6.45	137	129	1	10.0-147			5.87	36
Ethylbenzene	5.00	U	7.28	6.82	146	136	1	10.0-160			6.52	38
Hexachloro-1,3-butadiene	5.00	U	6.88	6.76	138	135	1	10.0-160			1.76	40
Isopropylbenzene	5.00	U	7.32	6.82	146	136	1	10.0-155			7.07	38

L1647953-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1647953-03 08/22/23 22:37 • (MS) R3964155-4 08/23/23 04:59 • (MSD) R3964155-5 08/23/23 05:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
p-Isopropyltoluene	5.00	U	6.56	6.47	131	129	1	10.0-160			1.38	40
2-Butanone (MEK)	25.0	U	36.9	35.0	148	140	1	10.0-160			5.29	40
Methylene Chloride	5.00	U	6.96	6.39	139	128	1	10.0-141			8.54	37
4-Methyl-2-pentanone (MIBK)	25.0	U	33.5	32.8	134	131	1	10.0-160			2.11	35
Methyl tert-butyl ether	5.00	U	6.85	6.33	137	127	1	11.0-147			7.89	35
Naphthalene	5.00	U	6.24	6.16	125	123	1	10.0-160			1.29	36
n-Propylbenzene	5.00	U	6.61	6.16	132	123	1	10.0-158			7.05	38
Styrene	5.00	U	6.70	6.50	134	130	1	10.0-160			3.03	40
1,1,1,2-Tetrachloroethane	5.00	U	6.55	6.24	131	125	1	10.0-149			4.85	39
1,1,2,2-Tetrachloroethane	5.00	U	7.05	6.40	141	128	1	10.0-160			9.67	35
1,1,2-Trichlorotrifluoroethane	5.00	U	7.73	7.46	155	149	1	10.0-160			3.55	36
Tetrachloroethene	5.00	U	7.90	7.35	158	147	1	10.0-156	J5		7.21	39
Toluene	5.00	U	7.18	7.02	144	140	1	10.0-156			2.25	38
1,2,3-Trichlorobenzene	5.00	U	6.68	6.81	134	136	1	10.0-160			1.93	40
1,2,4-Trichlorobenzene	5.00	U	6.61	6.45	132	129	1	10.0-160			2.45	40
1,1,1-Trichloroethane	5.00	U	7.63	7.03	153	141	1	10.0-144	J5		8.19	35
1,1,2-Trichloroethane	5.00	U	7.04	6.83	141	137	1	10.0-160			3.03	35
Trichloroethene	5.00	U	7.15	6.74	143	135	1	10.0-156			5.90	38
Trichlorofluoromethane	5.00	U	6.73	6.42	135	128	1	10.0-160			4.71	40
1,2,3-Trichloropropane	5.00	U	6.08	5.79	122	116	1	10.0-156			4.89	35
1,2,4-Trimethylbenzene	5.00	U	7.01	6.45	140	129	1	10.0-160			8.32	36
1,2,3-Trimethylbenzene	5.00	U	6.74	6.31	135	126	1	10.0-160			6.59	36
1,3,5-Trimethylbenzene	5.00	U	6.95	6.51	139	130	1	10.0-160			6.54	38
Vinyl chloride	5.00	U	7.56	7.15	151	143	1	10.0-160			5.57	37
Xylenes, Total	15.0	U	22.0	20.6	147	137	1	10.0-160			6.57	38
Ethyl Ether	5.00	U	6.98	6.55	140	131	1	10.0-160			6.36	31
Tetrahydrofuran	5.00	0.536	6.13	6.49	112	119	1	10.0-158			5.71	33
Iodomethane	25.0	U	33.4	31.7	134	127	1	10.0-160			5.22	38
Allyl chloride	25.0	U	39.0	37.0	156	148	1	10.0-160			5.26	30
Trans-1,4-Dichloro-2-butene	5.00	U	6.01	5.91	120	118	1	10.0-152			1.68	36
(S) Toluene-d8					*104*	*105*		*75.0-131*				
(S) 4-Bromofluorobenzene					*110*	*108*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*95.4*	*95.7*		*70.0-130*				

Method Blank (MB)

(MB) R3966410-3 08/27/23 11:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Vinyl chloride	U		0.0273	0.100
(S) Toluene-d8	*105*			*75.0-131*
(S) 4-Bromofluorobenzene	*109*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*89.6*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3966410-1 08/27/23 10:16 • (LCSD) R3966410-2 08/27/23 10:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	5.00	5.96	6.95	119	139	63.0-134		J4	15.3	20
(S) Toluene-d8				*107*	*107*	*75.0-131*				
(S) 4-Bromofluorobenzene				*105*	*104*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*89.9*	*92.1*	*70.0-130*				

Method Blank (MB)

(MB) R3966418-2 08/27/23 22:54

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		0.548	1.00
Acrylonitrile	U		0.0760	0.500
Benzene	U		0.0160	0.0400
Bromobenzene	U		0.0420	0.500
Bromodichloromethane	U		0.0315	0.100
Bromoform	U		0.239	1.00
Bromomethane	U		0.148	0.500
n-Butylbenzene	U		0.153	0.500
sec-Butylbenzene	U		0.101	0.500
tert-Butylbenzene	U		0.0620	0.200
Carbon tetrachloride	U		0.0432	0.200
Chlorobenzene	U		0.0229	0.100
Chlorodibromomethane	U		0.0180	0.100
Chloroethane	U		0.0432	0.200
Chloroform	U		0.0166	0.100
Chloromethane	U		0.0556	0.500
2-Chlorotoluene	U		0.0368	0.100
4-Chlorotoluene	U		0.0452	0.200
1,2-Dibromo-3-Chloropropane	U		0.204	1.00
1,2-Dibromoethane	U		0.0210	0.100
Dibromomethane	U		0.0400	0.200
1,2-Dichlorobenzene	U		0.0580	0.200
1,3-Dichlorobenzene	U		0.0680	0.200
1,4-Dichlorobenzene	U		0.0788	0.200
Dichlorodifluoromethane	U		0.0327	0.100
1,1-Dichloroethane	U		0.0230	0.100
1,2-Dichloroethane	U		0.0190	0.100
1,1-Dichloroethene	U		0.0200	0.100
cis-1,2-Dichloroethene	U		0.0276	0.100
trans-1,2-Dichloroethene	U		0.0572	0.200
1,2-Dichloropropane	U		0.0508	0.200
1,1-Dichloropropene	U		0.0280	0.100
1,3-Dichloropropane	U		0.0700	0.200
cis-1,3-Dichloropropene	U		0.0271	0.100
trans-1,3-Dichloropropene	U		0.0612	0.200
2,2-Dichloropropane	U		0.0317	0.100
Di-isopropyl ether	U		0.0140	0.0400
Ethylbenzene	U		0.0212	0.100
Hexachloro-1,3-butadiene	U		0.508	1.00
Isopropylbenzene	U		0.0345	0.100

Method Blank (MB)

(MB) R3966418-2 08/27/23 22:54

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
p-Isopropyltoluene	U		0.0932	0.200
2-Butanone (MEK)	U		0.500	1.00
Methylene Chloride	U		0.265	1.00
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00
Methyl tert-butyl ether	U		0.0118	0.0400
Naphthalene	U		0.124	0.500
n-Propylbenzene	U		0.0472	0.200
Styrene	U		0.109	0.500
1,1,1,2-Tetrachloroethane	U		0.0200	0.100
1,1,2,2-Tetrachloroethane	U		0.0156	0.100
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100
Tetrachloroethene	U		0.0280	0.100
Toluene	U		0.0500	0.200
1,2,3-Trichlorobenzene	U		0.0250	0.500
1,2,4-Trichlorobenzene	U		0.193	0.500
1,1,1-Trichloroethane	U		0.0110	0.100
1,1,2-Trichloroethane	U		0.0353	0.100
Trichloroethene	U		0.0160	0.0400
Trichlorofluoromethane	U		0.0200	0.100
1,2,3-Trichloropropane	U		0.204	0.500
1,2,4-Trimethylbenzene	U		0.0464	0.200
1,2,3-Trimethylbenzene	U		0.0460	0.200
1,3,5-Trimethylbenzene	U		0.0432	0.200
Vinyl chloride	U		0.0273	0.100
Xylenes, Total	U		0.191	0.260
Ethyl Ether	U		0.0170	0.100
Tetrahydrofuran	U		0.0900	0.500
Iodomethane	U		0.242	0.500
Allyl chloride	U		0.580	1.00
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200
(S) Toluene-d8	*103*			*75.0-131*
(S) 4-Bromofluorobenzene	*106*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*97.5*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3966418-1 08/27/23 21:57

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	25.0	32.6	130	10.0-160	
Acrylonitrile	25.0	25.6	102	45.0-153	
Benzene	5.00	5.79	116	70.0-123	
Bromobenzene	5.00	4.96	99.2	73.0-121	
Bromodichloromethane	5.00	5.61	112	73.0-121	
Bromoform	5.00	5.19	104	64.0-132	
Bromomethane	5.00	5.65	113	56.0-147	
n-Butylbenzene	5.00	5.29	106	68.0-135	
sec-Butylbenzene	5.00	5.08	102	74.0-130	
tert-Butylbenzene	5.00	4.99	99.8	75.0-127	
Carbon tetrachloride	5.00	5.66	113	66.0-128	
Chlorobenzene	5.00	5.31	106	76.0-128	
Chlorodibromomethane	5.00	5.62	112	74.0-127	
Chloroethane	5.00	6.84	137	61.0-134	J4
Chloroform	5.00	5.39	108	72.0-123	
Chloromethane	5.00	5.75	115	51.0-138	
2-Chlorotoluene	5.00	5.02	100	75.0-124	
4-Chlorotoluene	5.00	4.61	92.2	75.0-124	
1,2-Dibromo-3-Chloropropane	5.00	4.60	92.0	59.0-130	
1,2-Dibromoethane	5.00	5.44	109	74.0-128	
Dibromomethane	5.00	5.51	110	75.0-122	
1,2-Dichlorobenzene	5.00	5.13	103	76.0-124	
1,3-Dichlorobenzene	5.00	5.08	102	76.0-125	
1,4-Dichlorobenzene	5.00	5.13	103	77.0-121	
Dichlorodifluoromethane	5.00	6.20	124	43.0-156	
1,1-Dichloroethane	5.00	5.62	112	70.0-127	
1,2-Dichloroethane	5.00	4.70	94.0	65.0-131	
1,1-Dichloroethene	5.00	5.49	110	65.0-131	
cis-1,2-Dichloroethene	5.00	5.85	117	73.0-125	
trans-1,2-Dichloroethene	5.00	5.70	114	71.0-125	
1,2-Dichloropropane	5.00	5.65	113	74.0-125	
1,1-Dichloropropene	5.00	5.66	113	73.0-125	
1,3-Dichloropropane	5.00	5.50	110	80.0-125	
cis-1,3-Dichloropropene	5.00	5.65	113	76.0-127	
trans-1,3-Dichloropropene	5.00	5.16	103	73.0-127	
2,2-Dichloropropane	5.00	5.99	120	59.0-135	
Di-isopropyl ether	5.00	5.39	108	60.0-136	
Ethylbenzene	5.00	5.49	110	74.0-126	
Hexachloro-1,3-butadiene	5.00	5.69	114	57.0-150	
Isopropylbenzene	5.00	5.27	105	72.0-127	

Laboratory Control Sample (LCS)

(LCS) R3966418-1 08/27/23 21:57

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
p-Isopropyltoluene	5.00	5.11	102	72.0-133	
2-Butanone (MEK)	25.0	28.9	116	30.0-160	
Methylene Chloride	5.00	5.22	104	68.0-123	
4-Methyl-2-pentanone (MIBK)	25.0	24.8	99.2	56.0-143	
Methyl tert-butyl ether	5.00	5.34	107	66.0-132	
Naphthalene	5.00	4.47	89.4	59.0-130	
n-Propylbenzene	5.00	4.85	97.0	74.0-126	
Styrene	5.00	5.22	104	72.0-127	
1,1,1,2-Tetrachloroethane	5.00	4.98	99.6	74.0-129	
1,1,2,2-Tetrachloroethane	5.00	4.95	99.0	68.0-128	
1,1,2-Trichlorotrifluoroethane	5.00	6.00	120	61.0-139	
Tetrachloroethene	5.00	6.00	120	70.0-136	
Toluene	5.00	5.45	109	75.0-121	
1,2,3-Trichlorobenzene	5.00	5.32	106	59.0-139	
1,2,4-Trichlorobenzene	5.00	5.00	100	62.0-137	
1,1,1-Trichloroethane	5.00	5.62	112	69.0-126	
1,1,2-Trichloroethane	5.00	5.13	103	78.0-123	
Trichloroethene	5.00	5.68	114	76.0-126	
Trichlorofluoromethane	5.00	5.31	106	61.0-142	
1,2,3-Trichloropropane	5.00	4.50	90.0	67.0-129	
1,2,4-Trimethylbenzene	5.00	5.07	101	70.0-126	
1,2,3-Trimethylbenzene	5.00	5.01	100	74.0-124	
1,3,5-Trimethylbenzene	5.00	5.08	102	73.0-127	
Vinyl chloride	5.00	6.49	130	63.0-134	
Xylenes, Total	15.0	16.2	108	72.0-127	
Ethyl Ether	5.00	5.63	113	64.0-137	
Tetrahydrofuran	5.00	4.57	91.4	37.0-146	
Iodomethane	25.0	26.8	107	74.0-134	
Allyl chloride	25.0	30.2	121	70.0-131	
Trans-1,4-Dichloro-2-butene	5.00	4.57	91.4	45.0-143	
(S) Toluene-d8			*104*	*75.0-131*	
(S) 4-Bromofluorobenzene			*110*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*96.8*	*70.0-130*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
C5	The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
PES Environmental, Inc.- WA
2101 Fourth Ave., Suite 1310
Seattle, WA 98121

Billing Information:
Attn: Accounts Payable
2101 4th Avenue, Suite 1310
Seattle, WA 98121

Report to: **Bill Haldeman**

Email To: Rachel.McLaughlin@nv5.com;bill.haldeman@nv

Project Description: **American Linen**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **206-529-3980**

Client Project # **1413001.10.701.02**

Lab Project # **PESENVSWA-ALP**

Collected by (print): Osmin Monroy

Site/Facility ID #

P.O. # **443018-1413001.05.601**

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: STD

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260ULL 40mlAmb-HCl	CHLORIDE 250ml HDPE-NoPres	Nitrate, Sulfate 250 ml HDPE-NoPres	RSK175LL 40 mL Amb-HCl	# TOC 250 ml Amb-HCl <2						Remarks	Sample # (lab only)
HMW-9IB-081623	G	GW	—	8/16/23	830	7	X	X	X	X	X							-01
MW107-081623		GW			956	3	X											-02
W-MW-07-081623		GW			1053	3	X											-03
MW113-081623		GW			1237	3	X											-04
MW-348-081623	↓	GW	↓	↓	1343	7	X	X	X	X	X							-05
TB-081623		GW	—	8/16/23	—	1	X										Hold	-06

PH-10BDH4321 TRC-2352362
CR6-20221V

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1647036
D182

Acctnum: **PESENVSWA**
Template: **T235112**
Prelogin: **P1015472**
PM: **546 - Jared Starkey**
PB: BF 8/2/23

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Tier 2 lab QA/QC are required. pH _____ Temp _____ Flow _____ Other _____

Samples returned via: __ UPS ✓ FedEx __ Courier _____

Tracking # 6643 4296 5438

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	8/16/23	1530		1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: GBA8 °C 2.8+0=2.8 Bottles Received: 23	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 8/17/23 Time: 900	Hold: Condition: NCF / OK

MEMORANDUM

TO: Project File **DATE:** October 17, 2023

FROM: Jessie Compeau

SUBJECT: Laboratory Data Validation Review

PROJECT: American Linen Data Validation

PROJECT #: 443022-1413001.10.603.04

TASK: EIM Data Validation Level EPA2A for Mercer – Q3 2023 AL Monitoring Wells

LAB: Pace Sample Delivery Group (SDG): L1647036

Five groundwater samples (including a field duplicate) were collected August 16, 2023, from monitoring wells associated with 3rd quarter American Linen. One of the five groundwater samples was collected from monitoring well (MW-348) located on the SDOT Parcel in Seattle, WA. The samples were shipped and delivered to Pace Lab Sciences (Pace) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

Commented [JC1]: Confirm.

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260D;
- VOCs (dissolved gases – methane, ethane, and ethene) by EPA SOP RSK 175;
- Anions (chloride, nitrate, and sulfate) by USEPA Method 9056A; and
- Total Organic Carbon (TOC) by USEPA Method 9060A.

The quality assurance review of the laboratory data associated with SDG L1647036 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for a limited data validation review of analytical data along with Pace control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2020) and USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2020). Following Guidelines, non-project-specific laboratory duplicates and matrix spike results were not evaluated as part of this data validation.

DATA VALIDATION

Completeness

The samples were collected and analyzed as requested with the following discussion:

- Sample MW-348-081523 VOC vials were all received with headspace and the monitoring well was resampled on August 16, 2023, and submitted to Pace for analysis. Sample MW-348-081523 VOC results are reported along with SDOT monitoring well samples in SDG L1647036. Sample MW-348-081523 results for anions, TOC, and dissolved gases are reported in SDG L1646504.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice in coolers and delivered by courier to the analytical laboratory. The laboratory reported that the coolers were received at a cooler temperature less than the recommended temperature preservation of 6°C. The samples were received in good condition. No data are qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260D:
The samples were analyzed for VOCs within the EPA recommended holding time of fourteen days for preserved waters from the date of collection. All holding time criteria are met.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:
The samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria are met.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC):
The samples were analyzed within the USEPA recommended holding time for chloride (28 days), sulfate (28 days), and nitrate (48 hours), and TOC (28 days) for the preserved water sample from the date of sample collection. All holding time criteria are met.

Initial and Continuing Calibration

USEPA Method 8260D (VOCs):
Initial and continuing calibration data for this project are retained by the laboratory and available for review if necessary. Pace indicated within the laboratory report that continuing calibration verification (CCV) criteria for were not met for the following:

- *USEPA Method 8260D* - Continuing calibration verification (CCV) issues were noted by Pace for multiple compounds associated with analytical batches in each SDG. These compounds are qualified by the laboratory "C3" to indicate that percent difference CCV is below laboratory acceptance criteria and showing low bias. **Associated sample results with laboratory qualified (C3) results are estimated with low bias and qualified (J-/UJ). Results reported below the RDL are estimated (J) and bias is not assigned.**

- *USEPA Method 8260D* - Continuing calibration verification (CCV) issues were noted by Pace in the SDG. These compounds are qualified by the laboratory "C5" to indicate that percent difference CCV is above laboratory acceptance criteria and showing high bias.

Associated sample results (detects) with laboratory qualified (C5) results are estimated with high bias and qualified (J+).

Method Blank Results

USEPA Method 8260D:
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes are not detected in the method blanks at or above the reporting detection limits (RDLs).

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (dissolved gases) are not detected in the method blanks at or above the RDLs with the following exceptions:

- Analytical batch WG2119823: Methane was detected at a low level in the method blank. No action is needed since associated methane concentrations are far greater than the method blank.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC):
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes were detected in the method blanks below the RDLs. Per Guidance, no action is taken for blank detections less than the RDL when associated sample detections are greater than the RDL. General chemistry blank detections are shown below:

SDG	Batch	Method	Analyte	Method Blank Result	Qualifier	RDL	Units	Associated Result(s) Qualified
L1647036	WG2117715	9056A	TOC	334	J	1000	µg/L	NO

The target analytes were detected in the method blanks at low levels and below the RDLs. No action is taken on this basis.

Trip Blank Results

USEPA Method 8260D:
A trip blank was not collected.

Field, Rinsate, or Equipment Blank Results

All Analytical Methods:
A field, rinsate or equipment blank was not collected.

Field Duplicate Analyses

A field duplicate pair was not collected.

Laboratory Duplicate Analyses

USEPA Method 8260D:
Laboratory duplicate samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:
Laboratory duplicate sample analyses were performed on non-client samples. The primary/duplicate RPDs for dissolved gas analyses are within the laboratory control limit of 20%.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC):
Laboratory duplicate sample analyses were performed on client samples and/or on non-client samples. The primary/duplicate client RPDs for general chemistry parameters are within the laboratory control RPD limits or ± 1x RDL for client groundwater results <5X the RDL.

Surrogate Recoveries

USEPA Method 8260D:
The surrogate recovery results for the samples, laboratory control samples, and the method blanks are within the laboratory surrogate control limits for all the analyses.

Laboratory Control Samples

USEPA Method 8260D:
Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) or laboratory control sample (LCS) were analyzed by USEPA Method 8260D method. The LCS % Rs or LCS/LCSD % Rs and RPDs for all target compounds are within the laboratory control criteria for waters with the following exceptions:

- Analytical batch WG2119135: LCS/LCSD RPD recovery for dichlorodifluoromethane and 1,1,2-trichlorotrifluoroethane are outside of laboratory QC criteria and laboratory qualified (J3). No action is needed since dichlorodifluoromethane and 1,1,2-trichlorotrifluoroethane LCS/LCSD recoveries are within criteria.

- Analytical batch WG2122065: LCS recovery for chloroethane is above laboratory QC criteria and laboratory qualified (J4). No action is needed for chloroethane since this compound is not detected in the associated sample HMW-9IB-081623 and sample MW107-081623 is already qualified (J+) due to continuing calibration. Refer to the section on Initial and Continuing Calibration for additional information.

- Analytical batch WG2119336: LCSD recovery for vinyl chloride is above laboratory QC criteria and laboratory qualified (J4). No action is needed since the LCS % recovery and RPD for vinyl chloride are within laboratory acceptance criteria.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

The LCS/LCSD % Rs and RPDs for the target compound (dissolved gases) are within the laboratory control criteria for waters.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC):
The LCS % Rs for general chemistry parameters are within the laboratory control criteria for waters.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260D:
Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on a non-client sample associated with analytical batch WG2119135. not performed. Refer to laboratory control sample results for precision and accuracy results.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:
MS/MSD analyses were not performed. Refer to laboratory control sample and laboratory duplicate results for precision and accuracy results.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC):
MS or MS/MSD analyses were performed on client and/or on non-client samples within the analytical batches. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following discussions:

- MS or MS/MSD analyses were performed on non-client samples within the analytical batches. Results are laboratory qualified due to elevated concentrations. No action was taken since the spikes were performed on non-client samples.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report with the following discussion:

- Electronic data deliverables (EDDs) for this SDG was provided by the laboratory and data validator qualifiers were entered. In some cases, different chemical synonyms are used between the EDD and the hardcopy but the associated Chemical Abstracts Service (CAS) numbers are provided in the EDD to confirm chemical identifications.

Compound Identification and Quantitation Limits

Results of the analyses are reported based on laboratory RDLs for all compounds. RDLs for all targets or selected compounds are elevated in several samples due to method-required dilutions. Per PES's request the associated EDDs show result reporting limits (also known as reported detection limit (RDL) or practical quantitation limit (PQL)) and result detection limits (also referred to as method detection limit (MDL)) instead of defaulting to the RDL when reporting the MDL

Data Assessment

The laboratory data reported for this project were reviewed based on the criteria outlined in:

- USEPA National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2020); and
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2020).

Data qualifiers are assigned and laboratory report pages with qualifiers are attached. All data, including qualified data, are judged to be acceptable for their intended use.

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	48100		379	1000	1	08/17/2023 22:00	WG2115763
Nitrate	U		48.0	100	1	08/17/2023 22:00	WG2115763
Sulfate	663	J	594	5000	1	08/17/2023 22:00	WG2115763

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	37800		510	5000	5	08/23/2023 21:19	WG2117715

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	35900		2.87	6.78	10	08/24/2023 11:56	WG2119823
Ethane	14.8		0.296	1.29	1	08/23/2023 11:39	WG2118976
Ethene	126		0.422	1.27	1	08/23/2023 11:39	WG2118976

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch	
	ug/l		ug/l	ug/l		date / time		
Acetone	11.4 J-	C3	0.548	1.00	1	08/28/2023 05:25	WG2122065	
Acrylonitrile	U		0.0760	0.500	1	08/28/2023 05:25	WG2122065	
Benzene	0.0260	J	0.0160	0.0400	1	08/28/2023 05:25	WG2122065	
Bromobenzene	U		0.0420	0.500	1	08/28/2023 05:25	WG2122065	
Bromodichloromethane	U		0.0315	0.100	1	08/28/2023 05:25	WG2122065	
Bromoform	U		0.239	1.00	1	08/28/2023 05:25	WG2122065	
Bromomethane	U		0.148	0.500	1	08/28/2023 05:25	WG2122065	
n-Butylbenzene	U		0.153	0.500	1	08/28/2023 05:25	WG2122065	
sec-Butylbenzene	U		0.101	0.500	1	08/28/2023 05:25	WG2122065	
tert-Butylbenzene	U		0.0620	0.200	1	08/28/2023 05:25	WG2122065	
Carbon tetrachloride	U		0.0432	0.200	1	08/28/2023 05:25	WG2122065	
Chlorobenzene	U		0.0229	0.100	1	08/28/2023 05:25	WG2122065	
Chlorodibromomethane	U		0.0180	0.100	1	08/28/2023 05:25	WG2122065	
Chloroethane	U	~~J4~~	0.0432	0.200	1	08/28/2023 05:25	WG2122065	
Chloroform	U		0.0166	0.100	1	08/28/2023 05:25	WG2122065	
Chloromethane	U		0.0556	0.500	1	08/28/2023 05:25	WG2122065	
2-Chlorotoluene	U		0.0368	0.100	1	08/28/2023 05:25	WG2122065	
4-Chlorotoluene	U		0.0452	0.200	1	08/28/2023 05:25	WG2122065	
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/28/2023 05:25	WG2122065	
1,2-Dibromoethane	U		0.0210	0.100	1	08/28/2023 05:25	WG2122065	
Dibromomethane	U		0.0400	0.200	1	08/28/2023 05:25	WG2122065	
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/28/2023 05:25	WG2122065	
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/28/2023 05:25	WG2122065	
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/28/2023 05:25	WG2122065	
Dichlorodifluoromethane	U		0.0327	0.100	1	08/28/2023 05:25	WG2122065	
1,1-Dichloroethane	U		0.0230	0.100	1	08/28/2023 05:25	WG2122065	
1,2-Dichloroethane	0.120		0.0190	0.100	1	08/28/2023 05:25	WG2122065	
1,1-Dichloroethene	U		0.0200	0.100	1	08/28/2023 05:25	WG2122065	
cis-1,2-Dichloroethene	8.86		0.0276	0.100	1	08/28/2023 05:25	WG2122065	
trans-1,2-Dichloroethene	0.680		0.0572	0.200	1	08/28/2023 05:25	WG2122065	
1,2-Dichloropropane	U		0.0508	0.200	1	08/28/2023 05:25	WG2122065	
1,1-Dichloropropene	U		0.0280	0.100	1	08/28/2023 05:25	WG2122065	
1,3-Dichloropropane	U		0.0700	0.200	1	08/28/2023 05:25	WG2122065	
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/28/2023 05:25	WG2122065	
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/28/2023 05:25	WG2122065	JC 10/14/23

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
2,2-Dichloropropane	U		0.0317	0.100	1	08/28/2023 05:25	WG2122065
Di-isopropyl ether	U		0.0140	0.0400	1	08/28/2023 05:25	WG2122065
Ethylbenzene	0.0920	J	0.0212	0.100	1	08/28/2023 05:25	WG2122065
Hexachloro-1,3-butadiene	U UJ	C3	0.508	1.00	1	08/28/2023 05:25	WG2122065
Isopropylbenzene	U		0.0345	0.100	1	08/28/2023 05:25	WG2122065
p-Isopropyltoluene	U		0.0932	0.200	1	08/28/2023 05:25	WG2122065
2-Butanone (MEK)	15.7		0.500	1.00	1	08/28/2023 05:25	WG2122065
Methylene Chloride	U		0.265	1.00	1	08/28/2023 05:25	WG2122065
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/28/2023 05:25	WG2122065
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/28/2023 05:25	WG2122065
Naphthalene	U		0.124	0.500	1	08/28/2023 05:25	WG2122065
n-Propylbenzene	U		0.0472	0.200	1	08/28/2023 05:25	WG2122065
Styrene	U		0.109	0.500	1	08/28/2023 05:25	WG2122065
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/28/2023 05:25	WG2122065
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/28/2023 05:25	WG2122065
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/28/2023 05:25	WG2122065
Tetrachloroethene	U		0.0280	0.100	1	08/28/2023 05:25	WG2122065
Toluene	0.405		0.0500	0.200	1	08/28/2023 05:25	WG2122065
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/28/2023 05:25	WG2122065
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/28/2023 05:25	WG2122065
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/28/2023 05:25	WG2122065
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/28/2023 05:25	WG2122065
Trichloroethene	0.620		0.0160	0.0400	1	08/28/2023 05:25	WG2122065
Trichlorofluoromethane	U		0.0200	0.100	1	08/28/2023 05:25	WG2122065
1,2,3-Trichloropropane	U		0.204	0.500	1	08/28/2023 05:25	WG2122065
1,2,4-Trimethylbenzene	0.115	J	0.0464	0.200	1	08/28/2023 05:25	WG2122065
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/28/2023 05:25	WG2122065
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/28/2023 05:25	WG2122065
Vinyl chloride	9.18		0.0273	0.100	1	08/28/2023 05:25	WG2122065
Xylenes, Total	0.524		0.191	0.260	1	08/28/2023 05:25	WG2122065
Ethyl Ether	U		0.0170	0.100	1	08/28/2023 05:25	WG2122065
Tetrahydrofuran	1.67		0.0900	0.500	1	08/28/2023 05:25	WG2122065
Iodomethane	U		0.242	0.500	1	08/28/2023 05:25	WG2122065
Allyl chloride	U		0.580	1.00	1	08/28/2023 05:25	WG2122065
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/28/2023 05:25	WG2122065
(S) Toluene-d8	*102*			*75.0-131*		*08/28/2023 05:25*	WG2122065
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*08/28/2023 05:25*	WG2122065
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*		*08/28/2023 05:25*	WG2122065

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Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch	
	ug/l		ug/l	ug/l		date / time		
Acetone	5.87 J-	C3	0.548	1.00	1	08/28/2023 05:44	WG2122065	
Acrylonitrile	U		0.0760	0.500	1	08/28/2023 05:44	WG2122065	
Benzene	0.116		0.0160	0.0400	1	08/28/2023 05:44	WG2122065	
Bromobenzene	U		0.0420	0.500	1	08/28/2023 05:44	WG2122065	
Bromodichloromethane	U		0.0315	0.100	1	08/28/2023 05:44	WG2122065	
Bromoform	U		0.239	1.00	1	08/28/2023 05:44	WG2122065	
Bromomethane	U		0.148	0.500	1	08/28/2023 05:44	WG2122065	
n-Butylbenzene	U		0.153	0.500	1	08/28/2023 05:44	WG2122065	
sec-Butylbenzene	U		0.101	0.500	1	08/28/2023 05:44	WG2122065	
tert-Butylbenzene	U		0.0620	0.200	1	08/28/2023 05:44	WG2122065	
Carbon tetrachloride	U		0.0432	0.200	1	08/28/2023 05:44	WG2122065	
Chlorobenzene	U		0.0229	0.100	1	08/28/2023 05:44	WG2122065	
Chlorodibromomethane	U		0.0180	0.100	1	08/28/2023 05:44	WG2122065	
Chloroethane	0.324 J+	C5 ~~J4~~	0.0432	0.200	1	08/28/2023 05:44	WG2122065	
Chloroform	0.208		0.0166	0.100	1	08/28/2023 05:44	WG2122065	
Chloromethane	U		0.0556	0.500	1	08/28/2023 05:44	WG2122065	
2-Chlorotoluene	U		0.0368	0.100	1	08/28/2023 05:44	WG2122065	
4-Chlorotoluene	U		0.0452	0.200	1	08/28/2023 05:44	WG2122065	
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/28/2023 05:44	WG2122065	
1,2-Dibromoethane	U		0.0210	0.100	1	08/28/2023 05:44	WG2122065	
Dibromomethane	U		0.0400	0.200	1	08/28/2023 05:44	WG2122065	
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/28/2023 05:44	WG2122065	
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/28/2023 05:44	WG2122065	
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/28/2023 05:44	WG2122065	
Dichlorodifluoromethane	U		0.0327	0.100	1	08/28/2023 05:44	WG2122065	
1,1-Dichloroethane	U		0.0230	0.100	1	08/28/2023 05:44	WG2122065	
1,2-Dichloroethane	0.137		0.0190	0.100	1	08/28/2023 05:44	WG2122065	
1,1-Dichloroethene	U		0.0200	0.100	1	08/28/2023 05:44	WG2122065	
cis-1,2-Dichloroethene	9.54		0.0276	0.100	1	08/28/2023 05:44	WG2122065	
trans-1,2-Dichloroethene	3.88		0.0572	0.200	1	08/28/2023 05:44	WG2122065	
1,2-Dichloropropane	U		0.0508	0.200	1	08/28/2023 05:44	WG2122065	
1,1-Dichloropropene	U		0.0280	0.100	1	08/28/2023 05:44	WG2122065	
1,3-Dichloropropane	U		0.0700	0.200	1	08/28/2023 05:44	WG2122065	
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/28/2023 05:44	WG2122065	
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/28/2023 05:44	WG2122065	
2,2-Dichloropropane	U		0.0317	0.100	1	08/28/2023 05:44	WG2122065	
Di-isopropyl ether	U		0.0140	0.0400	1	08/28/2023 05:44	WG2122065	
Ethylbenzene	0.282		0.0212	0.100	1	08/28/2023 05:44	WG2122065	
Hexachloro-1,3-butadiene	U UJ	C3	0.508	1.00	1	08/28/2023 05:44	WG2122065	
Isopropylbenzene	0.102		0.0345	0.100	1	08/28/2023 05:44	WG2122065	
p-Isopropyltoluene	U		0.0932	0.200	1	08/28/2023 05:44	WG2122065	
2-Butanone (MEK)	U		0.500	1.00	1	08/28/2023 05:44	WG2122065	
Methylene Chloride	U		0.265	1.00	1	08/28/2023 05:44	WG2122065	
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/28/2023 05:44	WG2122065	
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/28/2023 05:44	WG2122065	
Naphthalene	U		0.124	0.500	1	08/28/2023 05:44	WG2122065	
n-Propylbenzene	U		0.0472	0.200	1	08/28/2023 05:44	WG2122065	
Styrene	U		0.109	0.500	1	08/28/2023 05:44	WG2122065	
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/28/2023 05:44	WG2122065	
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/28/2023 05:44	WG2122065	
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/28/2023 05:44	WG2122065	
Tetrachloroethene	0.689		0.0280	0.100	1	08/28/2023 05:44	WG2122065	
Toluene	0.443		0.0500	0.200	1	08/28/2023 05:44	WG2122065	
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/28/2023 05:44	WG2122065	
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/28/2023 05:44	WG2122065	JC 10/14/23
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/28/2023 05:44	WG2122065	

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/28/2023 05:44	WG2122065
Trichloroethene	2.90		0.0160	0.0400	1	08/28/2023 05:44	WG2122065
Trichlorofluoromethane	U		0.0200	0.100	1	08/28/2023 05:44	WG2122065
1,2,3-Trichloropropane	U		0.204	0.500	1	08/28/2023 05:44	WG2122065
1,2,4-Trimethylbenzene	0.0670	J	0.0464	0.200	1	08/28/2023 05:44	WG2122065
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/28/2023 05:44	WG2122065
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/28/2023 05:44	WG2122065
Vinyl chloride	6.92		0.0273	0.100	1	08/28/2023 05:44	WG2122065
Xylenes, Total	1.18		0.191	0.260	1	08/28/2023 05:44	WG2122065
Ethyl Ether	U		0.0170	0.100	1	08/28/2023 05:44	WG2122065
Tetrahydrofuran	5.68		0.0900	0.500	1	08/28/2023 05:44	WG2122065
Iodomethane	U		0.242	0.500	1	08/28/2023 05:44	WG2122065
Allyl chloride	U		0.580	1.00	1	08/28/2023 05:44	WG2122065
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/28/2023 05:44	WG2122065
(S) Toluene-d8	*104*			*75.0-131*		*08/28/2023 05:44*	WG2122065
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*08/28/2023 05:44*	WG2122065
(S) 1,2-Dichloroethane-d4	*97.0*			*70.0-130*		*08/28/2023 05:44*	WG2122065

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Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	63.7 J+	C5	0.548	1.00	1	08/23/2023 00:14	WG2119135
Acrylonitrile	U		0.0760	0.500	1	08/23/2023 00:14	WG2119135
Benzene	0.0210	J	0.0160	0.0400	1	08/23/2023 00:14	WG2119135
Bromobenzene	U		0.0420	0.500	1	08/23/2023 00:14	WG2119135
Bromodichloromethane	U		0.0315	0.100	1	08/23/2023 00:14	WG2119135
Bromoform	U		0.239	1.00	1	08/23/2023 00:14	WG2119135
Bromomethane	U		0.148	0.500	1	08/23/2023 00:14	WG2119135
n-Butylbenzene	U		0.153	0.500	1	08/23/2023 00:14	WG2119135
sec-Butylbenzene	U		0.101	0.500	1	08/23/2023 00:14	WG2119135
tert-Butylbenzene	U		0.0620	0.200	1	08/23/2023 00:14	WG2119135
Carbon tetrachloride	U		0.0432	0.200	1	08/23/2023 00:14	WG2119135
Chlorobenzene	U		0.0229	0.100	1	08/23/2023 00:14	WG2119135
Chlorodibromomethane	U		0.0180	0.100	1	08/23/2023 00:14	WG2119135
Chloroethane	U		0.0432	0.200	1	08/23/2023 00:14	WG2119135
Chloroform	U		0.0166	0.100	1	08/23/2023 00:14	WG2119135
Chloromethane	U		0.0556	0.500	1	08/23/2023 00:14	WG2119135
2-Chlorotoluene	U		0.0368	0.100	1	08/23/2023 00:14	WG2119135
4-Chlorotoluene	U		0.0452	0.200	1	08/23/2023 00:14	WG2119135
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/23/2023 00:14	WG2119135
1,2-Dibromoethane	U		0.0210	0.100	1	08/23/2023 00:14	WG2119135
Dibromomethane	U		0.0400	0.200	1	08/23/2023 00:14	WG2119135
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/23/2023 00:14	WG2119135
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/23/2023 00:14	WG2119135
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/23/2023 00:14	WG2119135
Dichlorodifluoromethane	U UJ	C3 ~~J3~~	0.0327	0.100	1	08/23/2023 00:14	WG2119135
1,1-Dichloroethane	U		0.0230	0.100	1	08/23/2023 00:14	WG2119135
1,2-Dichloroethane	U		0.0190	0.100	1	08/23/2023 00:14	WG2119135
1,1-Dichloroethene	0.549		0.0200	0.100	1	08/23/2023 00:14	WG2119135
cis-1,2-Dichloroethene	0.319		0.0276	0.100	1	08/23/2023 00:14	WG2119135
trans-1,2-Dichloroethene	U		0.0572	0.200	1	08/23/2023 00:14	WG2119135
1,2-Dichloropropane	U		0.0508	0.200	1	08/23/2023 00:14	WG2119135
1,1-Dichloropropene	U		0.0280	0.100	1	08/23/2023 00:14	WG2119135
1,3-Dichloropropane	U		0.0700	0.200	1	08/23/2023 00:14	WG2119135
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/23/2023 00:14	WG2119135
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/23/2023 00:14	WG2119135
2,2-Dichloropropane	U		0.0317	0.100	1	08/23/2023 00:14	WG2119135
Di-isopropyl ether	U		0.0140	0.0400	1	08/23/2023 00:14	WG2119135
Ethylbenzene	0.0870	J	0.0212	0.100	1	08/23/2023 00:14	WG2119135
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/23/2023 00:14	WG2119135
Isopropylbenzene	U		0.0345	0.100	1	08/23/2023 00:14	WG2119135
p-Isopropyltoluene	U		0.0932	0.200	1	08/23/2023 00:14	WG2119135
2-Butanone (MEK)	U		0.500	1.00	1	08/23/2023 00:14	WG2119135
Methylene Chloride	U		0.265	1.00	1	08/23/2023 00:14	WG2119135
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/23/2023 00:14	WG2119135
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/23/2023 00:14	WG2119135
Naphthalene	U		0.124	0.500	1	08/23/2023 00:14	WG2119135
n-Propylbenzene	U		0.0472	0.200	1	08/23/2023 00:14	WG2119135
Styrene	U		0.109	0.500	1	08/23/2023 00:14	WG2119135
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/23/2023 00:14	WG2119135
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/23/2023 00:14	WG2119135
1,1,2-Trichlorotrifluoroethane	U	~~J3~~	0.0270	0.100	1	08/23/2023 00:14	WG2119135
Tetrachloroethene	U		0.0280	0.100	1	08/23/2023 00:14	WG2119135
Toluene	0.116	J	0.0500	0.200	1	08/23/2023 00:14	WG2119135
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/23/2023 00:14	WG2119135
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/23/2023 00:14	WG2119135
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/23/2023 00:14	WG2119135

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Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/23/2023 00:14	WG2119135
Trichloroethene	0.0480		0.0160	0.0400	1	08/23/2023 00:14	WG2119135
Trichlorofluoromethane	U		0.0200	0.100	1	08/23/2023 00:14	WG2119135
1,2,3-Trichloropropane	U		0.204	0.500	1	08/23/2023 00:14	WG2119135
1,2,4-Trimethylbenzene	0.157	J	0.0464	0.200	1	08/23/2023 00:14	WG2119135
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/23/2023 00:14	WG2119135
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/23/2023 00:14	WG2119135
Vinyl chloride	2.51		0.0273	0.100	1	08/23/2023 00:14	WG2119135
Xylenes, Total	0.564		0.191	0.260	1	08/23/2023 00:14	WG2119135
Ethyl Ether	U		0.0170	0.100	1	08/23/2023 00:14	WG2119135
Tetrahydrofuran	3.50		0.0900	0.500	1	08/23/2023 00:14	WG2119135
Iodomethane	U		0.242	0.500	1	08/23/2023 00:14	WG2119135
Allyl chloride	U		0.580	1.00	1	08/23/2023 00:14	WG2119135
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/23/2023 00:14	WG2119135
(S) Toluene-d8	*105*			*75.0-131*		*08/23/2023 00:14*	WG2119135
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*08/23/2023 00:14*	WG2119135
(S) 1,2-Dichloroethane-d4	*95.8*			*70.0-130*		*08/23/2023 00:14*	WG2119135

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Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	4.72 J+	C5	0.548	1.00	1	08/23/2023 00:33	WG2119135
Acrylonitrile	0.746		0.0760	0.500	1	08/23/2023 00:33	WG2119135
Benzene	0.130		0.0160	0.0400	1	08/23/2023 00:33	WG2119135
Bromobenzene	U		0.0420	0.500	1	08/23/2023 00:33	WG2119135
Bromodichloromethane	U		0.0315	0.100	1	08/23/2023 00:33	WG2119135
Bromoform	U		0.239	1.00	1	08/23/2023 00:33	WG2119135
Bromomethane	U		0.148	0.500	1	08/23/2023 00:33	WG2119135
n-Butylbenzene	U		0.153	0.500	1	08/23/2023 00:33	WG2119135
sec-Butylbenzene	U		0.101	0.500	1	08/23/2023 00:33	WG2119135
tert-Butylbenzene	U		0.0620	0.200	1	08/23/2023 00:33	WG2119135
Carbon tetrachloride	U		0.0432	0.200	1	08/23/2023 00:33	WG2119135
Chlorobenzene	U		0.0229	0.100	1	08/23/2023 00:33	WG2119135
Chlorodibromomethane	U		0.0180	0.100	1	08/23/2023 00:33	WG2119135
Chloroethane	U		0.0432	0.200	1	08/23/2023 00:33	WG2119135
Chloroform	U		0.0166	0.100	1	08/23/2023 00:33	WG2119135
Chloromethane	U		0.0556	0.500	1	08/23/2023 00:33	WG2119135
2-Chlorotoluene	U		0.0368	0.100	1	08/23/2023 00:33	WG2119135
4-Chlorotoluene	U		0.0452	0.200	1	08/23/2023 00:33	WG2119135
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/23/2023 00:33	WG2119135
1,2-Dibromoethane	U		0.0210	0.100	1	08/23/2023 00:33	WG2119135
Dibromomethane	U		0.0400	0.200	1	08/23/2023 00:33	WG2119135
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/23/2023 00:33	WG2119135
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/23/2023 00:33	WG2119135
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/23/2023 00:33	WG2119135
Dichlorodifluoromethane	U UJ	C3 ~~J3~~	0.0327	0.100	1	08/23/2023 00:33	WG2119135
1,1-Dichloroethane	U		0.0230	0.100	1	08/23/2023 00:33	WG2119135
1,2-Dichloroethane	U		0.0190	0.100	1	08/23/2023 00:33	WG2119135
1,1-Dichloroethene	0.282		0.0200	0.100	1	08/23/2023 00:33	WG2119135
cis-1,2-Dichloroethene	22.1		0.0276	0.100	1	08/23/2023 00:33	WG2119135
trans-1,2-Dichloroethene	0.190	J	0.0572	0.200	1	08/23/2023 00:33	WG2119135
1,2-Dichloropropane	U		0.0508	0.200	1	08/23/2023 00:33	WG2119135
1,1-Dichloropropene	U		0.0280	0.100	1	08/23/2023 00:33	WG2119135
1,3-Dichloropropane	U		0.0700	0.200	1	08/23/2023 00:33	WG2119135
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/23/2023 00:33	WG2119135
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/23/2023 00:33	WG2119135
2,2-Dichloropropane	U		0.0317	0.100	1	08/23/2023 00:33	WG2119135
Di-isopropyl ether	U		0.0140	0.0400	1	08/23/2023 00:33	WG2119135
Ethylbenzene	0.318		0.0212	0.100	1	08/23/2023 00:33	WG2119135
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/23/2023 00:33	WG2119135
Isopropylbenzene	U		0.0345	0.100	1	08/23/2023 00:33	WG2119135
p-Isopropyltoluene	U		0.0932	0.200	1	08/23/2023 00:33	WG2119135
2-Butanone (MEK)	U		0.500	1.00	1	08/23/2023 00:33	WG2119135
Methylene Chloride	U		0.265	1.00	1	08/23/2023 00:33	WG2119135
4-Methyl-2-pentanone (MIBK)	0.635	J	0.400	1.00	1	08/23/2023 00:33	WG2119135
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/23/2023 00:33	WG2119135
Naphthalene	U		0.124	0.500	1	08/23/2023 00:33	WG2119135
n-Propylbenzene	U		0.0472	0.200	1	08/23/2023 00:33	WG2119135
Styrene	U		0.109	0.500	1	08/23/2023 00:33	WG2119135
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/23/2023 00:33	WG2119135
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/23/2023 00:33	WG2119135
1,1,2-Trichlorotrifluoroethane	U	~~J3~~	0.0270	0.100	1	08/23/2023 00:33	WG2119135
Tetrachloroethene	1.55		0.0280	0.100	1	08/23/2023 00:33	WG2119135
Toluene	0.121	J	0.0500	0.200	1	08/23/2023 00:33	WG2119135
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/23/2023 00:33	WG2119135
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/23/2023 00:33	WG2119135
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/23/2023 00:33	WG2119135

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Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/23/2023 00:33	WG2119135
Trichloroethene	1.45		0.0160	0.0400	1	08/23/2023 00:33	WG2119135
Trichlorofluoromethane	U		0.0200	0.100	1	08/23/2023 00:33	WG2119135
1,2,3-Trichloropropane	U		0.204	0.500	1	08/23/2023 00:33	WG2119135
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	08/23/2023 00:33	WG2119135
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/23/2023 00:33	WG2119135
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/23/2023 00:33	WG2119135
Vinyl chloride	66.1		0.0273	0.100	1	08/23/2023 00:33	WG2119135
Xylenes, Total	1.32		0.191	0.260	1	08/23/2023 00:33	WG2119135
Ethyl Ether	U		0.0170	0.100	1	08/23/2023 00:33	WG2119135
Tetrahydrofuran	2.11		0.0900	0.500	1	08/23/2023 00:33	WG2119135
Iodomethane	U		0.242	0.500	1	08/23/2023 00:33	WG2119135
Allyl chloride	U		0.580	1.00	1	08/23/2023 00:33	WG2119135
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/23/2023 00:33	WG2119135
(S) Toluene-d8	*105*			*75.0-131*		*08/23/2023 00:33*	WG2119135
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*08/23/2023 00:33*	WG2119135
(S) 1,2-Dichloroethane-d4	*98.6*			*70.0-130*		*08/23/2023 00:33*	WG2119135

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Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	41000		379	1000	1	08/18/2023 00:31	WG2116143
Nitrate	U		48.0	100	1	08/18/2023 00:31	WG2116143
Sulfate	10200		594	5000	1	08/18/2023 00:31	WG2116143

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	10300		102	1000	1	08/23/2023 21:35	WG2117715

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	7040		2.87	6.78	10	08/24/2023 12:09	WG2119823
Ethane	1.61		0.296	1.29	1	08/23/2023 11:43	WG2118976
Ethene	27.3		0.422	1.27	1	08/23/2023 11:43	WG2118976

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.52 J+	C5	0.548	1.00	1	08/23/2023 00:52	WG2119135
Acrylonitrile	U		0.0760	0.500	1	08/23/2023 00:52	WG2119135
Benzene	0.0240	J	0.0160	0.0400	1	08/23/2023 00:52	WG2119135
Bromobenzene	U		0.0420	0.500	1	08/23/2023 00:52	WG2119135
Bromodichloromethane	U		0.0315	0.100	1	08/23/2023 00:52	WG2119135
Bromoform	U		0.239	1.00	1	08/23/2023 00:52	WG2119135
Bromomethane	U		0.148	0.500	1	08/23/2023 00:52	WG2119135
n-Butylbenzene	U		0.153	0.500	1	08/23/2023 00:52	WG2119135
sec-Butylbenzene	U		0.101	0.500	1	08/23/2023 00:52	WG2119135
tert-Butylbenzene	U		0.0620	0.200	1	08/23/2023 00:52	WG2119135
Carbon tetrachloride	U		0.0432	0.200	1	08/23/2023 00:52	WG2119135
Chlorobenzene	U		0.0229	0.100	1	08/23/2023 00:52	WG2119135
Chlorodibromomethane	U		0.0180	0.100	1	08/23/2023 00:52	WG2119135
Chloroethane	U		0.0432	0.200	1	08/23/2023 00:52	WG2119135
Chloroform	U		0.0166	0.100	1	08/23/2023 00:52	WG2119135
Chloromethane	U		0.0556	0.500	1	08/23/2023 00:52	WG2119135
2-Chlorotoluene	U		0.0368	0.100	1	08/23/2023 00:52	WG2119135
4-Chlorotoluene	U		0.0452	0.200	1	08/23/2023 00:52	WG2119135
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/23/2023 00:52	WG2119135
1,2-Dibromoethane	U		0.0210	0.100	1	08/23/2023 00:52	WG2119135
Dibromomethane	U		0.0400	0.200	1	08/23/2023 00:52	WG2119135
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/23/2023 00:52	WG2119135
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/23/2023 00:52	WG2119135
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/23/2023 00:52	WG2119135
Dichlorodifluoromethane	U UJ	C3 ~~J3~~	0.0327	0.100	1	08/23/2023 00:52	WG2119135
1,1-Dichloroethane	0.0500	J	0.0230	0.100	1	08/23/2023 00:52	WG2119135
1,2-Dichloroethane	U		0.0190	0.100	1	08/23/2023 00:52	WG2119135
1,1-Dichloroethene	0.226		0.0200	0.100	1	08/23/2023 00:52	WG2119135
cis-1,2-Dichloroethene	76.1		0.0276	0.100	1	08/23/2023 00:52	WG2119135
trans-1,2-Dichloroethene	0.0720	J	0.0572	0.200	1	08/23/2023 00:52	WG2119135
1,2-Dichloropropane	U		0.0508	0.200	1	08/23/2023 00:52	WG2119135
1,1-Dichloropropene	U		0.0280	0.100	1	08/23/2023 00:52	WG2119135
1,3-Dichloropropane	U		0.0700	0.200	1	08/23/2023 00:52	WG2119135
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/23/2023 00:52	WG2119135
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/23/2023 00:52	WG2119135

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Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
2,2-Dichloropropane	U		0.0317	0.100	1	08/23/2023 00:52	WG2119135
Di-isopropyl ether	U		0.0140	0.0400	1	08/23/2023 00:52	WG2119135
Ethylbenzene	0.128		0.0212	0.100	1	08/23/2023 00:52	WG2119135
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/23/2023 00:52	WG2119135
Isopropylbenzene	U		0.0345	0.100	1	08/23/2023 00:52	WG2119135
p-Isopropyltoluene	U		0.0932	0.200	1	08/23/2023 00:52	WG2119135
2-Butanone (MEK)	U		0.500	1.00	1	08/23/2023 00:52	WG2119135
Methylene Chloride	U		0.265	1.00	1	08/23/2023 00:52	WG2119135
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/23/2023 00:52	WG2119135
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/23/2023 00:52	WG2119135
Naphthalene	U		0.124	0.500	1	08/23/2023 00:52	WG2119135
n-Propylbenzene	U		0.0472	0.200	1	08/23/2023 00:52	WG2119135
Styrene	U		0.109	0.500	1	08/23/2023 00:52	WG2119135
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/23/2023 00:52	WG2119135
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/23/2023 00:52	WG2119135
1,1,2-Trichlorotrifluoroethane	U	~~J3~~	0.0270	0.100	1	08/23/2023 00:52	WG2119135
Tetrachloroethene	U		0.0280	0.100	1	08/23/2023 00:52	WG2119135
Toluene	0.481		0.0500	0.200	1	08/23/2023 00:52	WG2119135
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/23/2023 00:52	WG2119135
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/23/2023 00:52	WG2119135
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/23/2023 00:52	WG2119135
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/23/2023 00:52	WG2119135
Trichloroethene	0.250		0.0160	0.0400	1	08/23/2023 00:52	WG2119135
Trichlorofluoromethane	U		0.0200	0.100	1	08/23/2023 00:52	WG2119135
1,2,3-Trichloropropane	U		0.204	0.500	1	08/23/2023 00:52	WG2119135
1,2,4-Trimethylbenzene	0.106	J	0.0464	0.200	1	08/23/2023 00:52	WG2119135
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/23/2023 00:52	WG2119135
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/23/2023 00:52	WG2119135
Vinyl chloride	136	~~J4~~	0.137	0.500	5	08/27/2023 15:06	WG2119336
Xylenes, Total	0.707		0.191	0.260	1	08/23/2023 00:52	WG2119135
Ethyl Ether	U		0.0170	0.100	1	08/23/2023 00:52	WG2119135
Tetrahydrofuran	4.00		0.0900	0.500	1	08/23/2023 00:52	WG2119135
Iodomethane	U		0.242	0.500	1	08/23/2023 00:52	WG2119135
Allyl chloride	U		0.580	1.00	1	08/23/2023 00:52	WG2119135
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/23/2023 00:52	WG2119135
(S) Toluene-d8	*105*			*75.0-131*		*08/23/2023 00:52*	WG2119135
(S) Toluene-d8	*102*			*75.0-131*		*08/27/2023 15:06*	WG2119336
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*08/23/2023 00:52*	WG2119135
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*08/27/2023 15:06*	WG2119336
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*		*08/23/2023 00:52*	WG2119135
(S) 1,2-Dichloroethane-d4	*93.7*			*70.0-130*		*08/27/2023 15:06*	WG2119336

JC
10/14/23

MEMORANDUM

TO: Project File **DATE:** October 17, 2023

FROM: Jessie Compeau

SUBJECT: Laboratory Data Validation Review

PROJECT: American Linen Data Validation

PROJECT #: 443022-1413001.10.603.04

TASK: EIM Data Validation Level EPA2A for Mercer – Q3 - 2023 SDOT Parcel Wells

LAB: Pace Sample Delivery Group (SDG): L1646504

Six groundwater samples (including a field duplicate), one equipment blank and one trip blank sample were collected August 15, 2023, from monitoring wells associated with 3rd quarter monitoring on SDOT Mercer Parcels at American Linen in Seattle, WA. The samples were shipped and delivered to Pace Lab Sciences (Pace) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260D;
- VOCs (dissolved gases – methane, ethane, and ethene) by EPA SOP RSK 175;
- Anions (chloride, nitrate, and sulfate) by USEPA Method 9056A; and
- Total Organic Carbon (TOC) by USEPA Method 9060A.

The quality assurance review of the laboratory data associated with SDG L1646504 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for a limited data validation review of analytical data along with Pace control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2020) and USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2020). Following Guidelines, non-project-specific laboratory duplicates and matrix spike results were not evaluated as part of this data validation.

DATA VALIDATION

Completeness

The samples were collected and analyzed as requested with the following discussion:

- Sample MW-348-081523 VOC vials were all received with headspace and the monitoring well was resampled on August 16, 2023, and submitted along with samples collected from monitoring wells at American Linen to Pace for analysis. Sample MW-348-081523 VOC results are reported in SDG L1647036. Sample MW-348-081523 results for anions, TOC, and dissolved gases are reported in SDG L1646504.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice in coolers and delivered by courier to the analytical laboratory. The laboratory reported that the coolers were received at a cooler temperature less than the recommended temperature preservation of 6°C. The samples were received in good condition. No data are qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260D:
The samples were analyzed for VOCs within the EPA recommended holding time of fourteen days for preserved waters from the date of collection. All holding time criteria are met.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:
The samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria are met.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC):
The samples were analyzed within the USEPA recommended holding time for chloride (28 days), sulfate (28 days), and nitrate (48 hours), and TOC (28 days) for the preserved water sample from the date of sample collection. All holding time criteria are met.

Initial and Continuing Calibration

USEPA Method 8260D (VOCs):
Initial and continuing calibration data for this project are retained by the laboratory and available for review if necessary. Pace indicated within the laboratory report that continuing calibration verification (CCV) criteria for were not met for the following:

- *USEPA Method 8260D* - Continuing calibration verification (CCV) issues were noted by Pace for multiple compounds associated with analytical batches in each SDG. These compounds are qualified by the laboratory "C3" to indicate that percent difference CCV is below laboratory acceptance criteria and showing low bias. **Associated sample results with laboratory qualified (C3) results are estimated with low bias and qualified (J-/UJ). Results reported below the RDL are estimated (J) and bias is not assigned.**

Method Blank Results

USEPA Method 8260D:

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes are not detected in the method blanks at or above the reporting detection limits (RDLs).

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (dissolved gases) are not detected in the method blanks at or above the RDLs with the following exceptions:

- Analytical batches WG2118962 and WG2119823: Methane was detected in the method blanks above the RDL. No action is needed since associated methane concentrations are greater (>5X) than the method blank.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC):
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes were detected in the method blanks below the RDLs. Per Guidance, no action is taken for blank detections less than the RDL when associated sample detections are greater than the RDL. General chemistry blank detection is shown below:

SDG	Batch	Method	Analyte	Method Blank Result	Qualifier	RDL	Units	Associated Result(s) Qualified
L1646504	WG2117713	9056A	TOC	108	J	1000	µg/L	NO

The target analyte was detected in the method blank at a low level and below the RDL. No action is taken on this basis.

Trip Blank Results

USEPA Method 8260D:
One trip blank (TB-081523) was collected and analyzed for VOCs. The target analytes were not detected in the trip blank at or above the RDLs.

Field, Rinsate, or Equipment Blank Results

All Analytical Methods:
One equipment blank (EQ-081523) was collected and is associated with samples collected from the bladder pump on August 15, 2023. Five samples were associated with the equipment blank (MW-346-081523, MW-347 -081523, MW-348 -081523, MW-349 -081523, and MW-350 -081523).

Low levels of TOC, and two VOCs (acetone and toluene) are detected in the equipment blank. Per Guidance, for common laboratory contaminants (acetone), if the blank concentration is greater than the RDL and less than twice the blank result the common lab contaminant is qualified as non-detect (U). Actions are as follows:

- TOC is detected in the equipment blank at 654 µg/L and below the RDL (1000 µg/L). TOC was also detected in the method blank (108 µg/L). No action is taken since TOC is detected above the RDL in the associated samples.

- Acetone is detected in the equipment blank at 1.81 µg/L and above the RDL (1.00 µg/L). Actions as follows:

    - **Acetone was detected below the established action level of 3.62 µg/L (1.81 µg/L x 2) in samples MW-346-081523, MW-992-081523, and MW-350-081523. These samples are qualified as not detected (U) due to equipment blank contamination.** No action is needed for the remaining samples since acetone is either not detected or detected above the detection in the associated results.

- Toluene is detected in the equipment blank at 0.0890 µg/L and below the RDL (0.200 µg/L). Actions are as follows:

    - **Toluene is detected below the RDL in samples MW-347-081523, MW-349-081523, and MW-350-081523 and are qualified as not detected (U) due to equipment blank contamination.** No action is needed for the remaining samples since toluene is either not detected or detected above the detection in the associated results.

Field Duplicate Analyses

A field duplicate pair was submitted and analyzed as follows:

- Sample MW-346-051623 and field duplicate MW-992-051623. Target analyte results are comparable and within a relative percent difference (RPD) of 30% (± 1x RDL for groundwater results <5X the RDL) for the field duplicate pair.

Laboratory Duplicate Analyses

USEPA Method 8260D:
Laboratory duplicate samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:
Laboratory duplicate sample analyses were performed on non-client samples. The primary/duplicate RPDs for dissolved gas analyses are within the laboratory control limit of 20%.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC):
Laboratory duplicate sample analyses were performed on non-client samples. The primary/duplicate RPDs for general chemistry parameters are within the laboratory control RPD limits or ± 1x RDL for groundwater results <5X the RDL.

Surrogate Recoveries

USEPA Method 8260D:
The surrogate recovery results for the samples, laboratory control samples, and the method blanks are within the laboratory surrogate control limits for all the analyses.

Laboratory Control Samples

USEPA Method 8260D:
Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) or laboratory control sample (LCS) were analyzed by USEPA Method 8260D method. The LCS % Rs or LCS/LCSD % Rs and RPDs for all target compounds are within the laboratory control criteria for waters with the following exceptions:

- Analytical batch WG2115647: LCS recovery for bromobenzene is above laboratory QC criteria and laboratory qualified (J4). No action is needed for bromobenzene since this compound is not detected in the associated samples.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:
The LCS/LCSD % Rs and RPDs for the target compound (dissolved gases) are within the laboratory control criteria for waters.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC):
The LCS % Rs for general chemistry parameters are within the laboratory control criteria for waters.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260D:
Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. Refer to laboratory control sample results for precision and accuracy results.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:
MS/MSD analyses were not performed. Refer to laboratory control sample and laboratory duplicate results for precision and accuracy results.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC):
MS or MS/MSD analyses were performed on client and/or on non-client samples within the analytical batches. Client MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report with the following discussion:

- Electronic data deliverables (EDDs) for this SDG was provided by the laboratory and data validator qualifiers were entered. In some cases, different chemical synonyms are

used between the EDD and the hardcopy but the associated Chemical Abstracts Service (CAS) numbers are provided in the EDD to confirm chemical identifications.

Compound Identification and Quantitation Limits

Results of the analyses are reported based on laboratory RDLs for all compounds. RDLs for all targets or selected compounds are elevated in several samples due to method-required dilutions. Per PES's request the associated EDDs show result reporting limits (also known as reported detection limit (RDL) or practical quantitation limit (PQL)) and result detection limits (also referred to as method detection limit (MDL)) instead of defaulting to the RDL when reporting the MDL

Data Assessment

The laboratory data reported for this project were reviewed based on the criteria outlined in:

- USEPA National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2020); and
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2020).

Data qualifiers are assigned and laboratory report pages with qualifiers are attached. All data, including qualified data, are judged to be acceptable for their intended use.

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	35000		379	1000	1	08/16/2023 20:51	WG2115051
Nitrate	U		48.0	100	1	08/16/2023 20:51	WG2115051
Sulfate	73400		594	5000	1	08/16/2023 20:51	WG2115051

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1540		102	1000	1	08/21/2023 17:34	WG2117713

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	82.2		0.287	0.678	1	08/22/2023 16:25	WG2118514
Ethane	U		0.296	1.29	1	08/22/2023 16:25	WG2118514
Ethene	5.05		0.422	1.27	1	08/22/2023 16:25	WG2118514

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.10 U		0.548	1.00	1	08/17/2023 03:06	WG2115647
Acrylonitrile	U		0.0760	0.500	1	08/17/2023 03:06	WG2115647
Benzene	U		0.0160	0.0400	1	08/17/2023 03:06	WG2115647
Bromobenzene	U	~~J4~~	0.0420	0.500	1	08/17/2023 03:06	WG2115647
Bromochloromethane	U		0.0452	0.200	1	08/17/2023 03:06	WG2115647
Bromodichloromethane	U		0.0315	0.100	1	08/17/2023 03:06	WG2115647
Bromoform	U		0.239	1.00	1	08/17/2023 03:06	WG2115647
Bromomethane	U		0.148	0.500	1	08/17/2023 03:06	WG2115647
n-Butylbenzene	U		0.153	0.500	1	08/17/2023 03:06	WG2115647
sec-Butylbenzene	U		0.101	0.500	1	08/17/2023 03:06	WG2115647
tert-Butylbenzene	U		0.0620	0.200	1	08/17/2023 03:06	WG2115647
Carbon disulfide	U		0.162	0.500	1	08/17/2023 03:06	WG2115647
Carbon tetrachloride	U		0.0432	0.200	1	08/17/2023 03:06	WG2115647
Chlorobenzene	U		0.0229	0.100	1	08/17/2023 03:06	WG2115647
Chlorodibromomethane	U		0.0180	0.100	1	08/17/2023 03:06	WG2115647
Chloroethane	U		0.0432	0.200	1	08/17/2023 03:06	WG2115647
Chloroform	U		0.0166	0.100	1	08/17/2023 03:06	WG2115647
Chloromethane	U		0.0556	0.500	1	08/17/2023 03:06	WG2115647
2-Chlorotoluene	U		0.0368	0.100	1	08/17/2023 03:06	WG2115647
4-Chlorotoluene	U		0.0452	0.200	1	08/17/2023 03:06	WG2115647
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/17/2023 03:06	WG2115647
1,2-Dibromoethane	U		0.0210	0.100	1	08/17/2023 03:06	WG2115647
Dibromomethane	U		0.0400	0.200	1	08/17/2023 03:06	WG2115647
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/17/2023 03:06	WG2115647
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/17/2023 03:06	WG2115647
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/17/2023 03:06	WG2115647
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/17/2023 03:06	WG2115647
Dichlorodifluoromethane	U		0.0327	0.100	1	08/17/2023 03:06	WG2115647
1,1-Dichloroethane	U		0.0230	0.100	1	08/17/2023 03:06	WG2115647
1,2-Dichloroethane	U		0.0190	0.100	1	08/17/2023 03:06	WG2115647
1,1-Dichloroethene	U		0.0200	0.100	1	08/17/2023 03:06	WG2115647
cis-1,2-Dichloroethene	2.31		0.0276	0.100	1	08/17/2023 03:06	WG2115647
trans-1,2-Dichloroethene	U		0.0572	0.200	1	08/17/2023 03:06	WG2115647
1,2-Dichloropropane	U		0.0508	0.200	1	08/17/2023 03:06	WG2115647
1,1-Dichloropropene	U		0.0280	0.100	1	08/17/2023 03:06	WG2115647

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Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,3-Dichloropropane	U		0.0700	0.200	1	08/17/2023 03:06	WG2115647
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/17/2023 03:06	WG2115647
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/17/2023 03:06	WG2115647
2,2-Dichloropropane	U		0.0317	0.100	1	08/17/2023 03:06	WG2115647
Di-isopropyl ether	U		0.0140	0.0400	1	08/17/2023 03:06	WG2115647
Ethylbenzene	0.0800	J	0.0212	0.100	1	08/17/2023 03:06	WG2115647
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/17/2023 03:06	WG2115647
2-Hexanone	U		0.400	1.00	1	08/17/2023 03:06	WG2115647
n-Hexane	U		0.0424	0.200	1	08/17/2023 03:06	WG2115647
Iodomethane	U		0.242	0.500	1	08/17/2023 03:06	WG2115647
Isopropylbenzene	U		0.0345	0.100	1	08/17/2023 03:06	WG2115647
p-Isopropyltoluene	U		0.0932	0.200	1	08/17/2023 03:06	WG2115647
2-Butanone (MEK)	U		0.500	1.00	1	08/17/2023 03:06	WG2115647
Methylene Chloride	U		0.265	1.00	1	08/17/2023 03:06	WG2115647
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/17/2023 03:06	WG2115647
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/17/2023 03:06	WG2115647
Naphthalene	U		0.124	0.500	1	08/17/2023 03:06	WG2115647
n-Propylbenzene	U		0.0472	0.200	1	08/17/2023 03:06	WG2115647
Styrene	U		0.109	0.500	1	08/17/2023 03:06	WG2115647
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/17/2023 03:06	WG2115647
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/17/2023 03:06	WG2115647
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/17/2023 03:06	WG2115647
Tetrachloroethene	U		0.0280	0.100	1	08/17/2023 03:06	WG2115647
Toluene	0.336		0.0500	0.200	1	08/17/2023 03:06	WG2115647
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/17/2023 03:06	WG2115647
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/17/2023 03:06	WG2115647
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/17/2023 03:06	WG2115647
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/17/2023 03:06	WG2115647
Trichloroethene	0.504		0.0160	0.0400	1	08/17/2023 03:06	WG2115647
Trichlorofluoromethane	U		0.0200	0.100	1	08/17/2023 03:06	WG2115647
1,2,3-Trichloropropane	U		0.204	0.500	1	08/17/2023 03:06	WG2115647
1,2,4-Trimethylbenzene	0.119	J	0.0464	0.200	1	08/17/2023 03:06	WG2115647
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/17/2023 03:06	WG2115647
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/17/2023 03:06	WG2115647
Vinyl acetate	U UJ	C3	0.141	0.500	1	08/17/2023 03:06	WG2115647
Vinyl chloride	2.11		0.0273	0.100	1	08/17/2023 03:06	WG2115647
Xylenes, Total	0.420		0.191	0.260	1	08/17/2023 03:06	WG2115647
(S) Toluene-d8	*112*			*75.0-131*		*08/17/2023 03:06*	WG2115647
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*08/17/2023 03:06*	WG2115647
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*		*08/17/2023 03:06*	WG2115647

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Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	34400		379	1000	1	08/16/2023 21:21	WG2115051
Nitrate	U		48.0	100	1	08/16/2023 21:21	WG2115051
Sulfate	71000		594	5000	1	08/16/2023 21:21	WG2115051

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1550		102	1000	1	08/21/2023 17:51	WG2117713

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	83.9		0.287	0.678	1	08/22/2023 16:27	WG2118514
Ethane	1.04	J	0.296	1.29	1	08/22/2023 16:27	WG2118514
Ethene	7.24		0.422	1.27	1	08/22/2023 16:27	WG2118514

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.73 U		0.548	1.00	1	08/17/2023 02:47	WG2115647
Acrylonitrile	U		0.0760	0.500	1	08/17/2023 02:47	WG2115647
Benzene	U		0.0160	0.0400	1	08/17/2023 02:47	WG2115647
Bromobenzene	U	~~J4~~	0.0420	0.500	1	08/17/2023 02:47	WG2115647
Bromochloromethane	U		0.0452	0.200	1	08/17/2023 02:47	WG2115647
Bromodichloromethane	U		0.0315	0.100	1	08/17/2023 02:47	WG2115647
Bromoform	U		0.239	1.00	1	08/17/2023 02:47	WG2115647
Bromomethane	U		0.148	0.500	1	08/17/2023 02:47	WG2115647
n-Butylbenzene	U		0.153	0.500	1	08/17/2023 02:47	WG2115647
sec-Butylbenzene	U		0.101	0.500	1	08/17/2023 02:47	WG2115647
tert-Butylbenzene	U		0.0620	0.200	1	08/17/2023 02:47	WG2115647
Carbon disulfide	U		0.162	0.500	1	08/17/2023 02:47	WG2115647
Carbon tetrachloride	U		0.0432	0.200	1	08/17/2023 02:47	WG2115647
Chlorobenzene	U		0.0229	0.100	1	08/17/2023 02:47	WG2115647
Chlorodibromomethane	U		0.0180	0.100	1	08/17/2023 02:47	WG2115647
Chloroethane	U		0.0432	0.200	1	08/17/2023 02:47	WG2115647
Chloroform	U		0.0166	0.100	1	08/17/2023 02:47	WG2115647
Chloromethane	U		0.0556	0.500	1	08/17/2023 02:47	WG2115647
2-Chlorotoluene	U		0.0368	0.100	1	08/17/2023 02:47	WG2115647
4-Chlorotoluene	U		0.0452	0.200	1	08/17/2023 02:47	WG2115647
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/17/2023 02:47	WG2115647
1,2-Dibromoethane	U		0.0210	0.100	1	08/17/2023 02:47	WG2115647
Dibromomethane	U		0.0400	0.200	1	08/17/2023 02:47	WG2115647
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/17/2023 02:47	WG2115647
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/17/2023 02:47	WG2115647
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/17/2023 02:47	WG2115647
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/17/2023 02:47	WG2115647
Dichlorodifluoromethane	U		0.0327	0.100	1	08/17/2023 02:47	WG2115647
1,1-Dichloroethane	U		0.0230	0.100	1	08/17/2023 02:47	WG2115647
1,2-Dichloroethane	U		0.0190	0.100	1	08/17/2023 02:47	WG2115647
1,1-Dichloroethene	U		0.0200	0.100	1	08/17/2023 02:47	WG2115647
cis-1,2-Dichloroethene	2.36		0.0276	0.100	1	08/17/2023 02:47	WG2115647
trans-1,2-Dichloroethene	U		0.0572	0.200	1	08/17/2023 02:47	WG2115647
1,2-Dichloropropane	U		0.0508	0.200	1	08/17/2023 02:47	WG2115647
1,1-Dichloropropene	U		0.0280	0.100	1	08/17/2023 02:47	WG2115647

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1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,3-Dichloropropane	U		0.0700	0.200	1	08/17/2023 02:47	WG2115647
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/17/2023 02:47	WG2115647
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/17/2023 02:47	WG2115647
2,2-Dichloropropane	U		0.0317	0.100	1	08/17/2023 02:47	WG2115647
Di-isopropyl ether	U		0.0140	0.0400	1	08/17/2023 02:47	WG2115647
Ethylbenzene	0.0520	J	0.0212	0.100	1	08/17/2023 02:47	WG2115647
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/17/2023 02:47	WG2115647
2-Hexanone	U		0.400	1.00	1	08/17/2023 02:47	WG2115647
n-Hexane	U		0.0424	0.200	1	08/17/2023 02:47	WG2115647
Iodomethane	U		0.242	0.500	1	08/17/2023 02:47	WG2115647
Isopropylbenzene	U		0.0345	0.100	1	08/17/2023 02:47	WG2115647
p-Isopropyltoluene	U		0.0932	0.200	1	08/17/2023 02:47	WG2115647
2-Butanone (MEK)	U		0.500	1.00	1	08/17/2023 02:47	WG2115647
Methylene Chloride	U		0.265	1.00	1	08/17/2023 02:47	WG2115647
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/17/2023 02:47	WG2115647
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/17/2023 02:47	WG2115647
Naphthalene	U		0.124	0.500	1	08/17/2023 02:47	WG2115647
n-Propylbenzene	U		0.0472	0.200	1	08/17/2023 02:47	WG2115647
Styrene	U		0.109	0.500	1	08/17/2023 02:47	WG2115647
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/17/2023 02:47	WG2115647
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/17/2023 02:47	WG2115647
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/17/2023 02:47	WG2115647
Tetrachloroethene	0.0440	J	0.0280	0.100	1	08/17/2023 02:47	WG2115647
Toluene	0.276		0.0500	0.200	1	08/17/2023 02:47	WG2115647
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/17/2023 02:47	WG2115647
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/17/2023 02:47	WG2115647
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/17/2023 02:47	WG2115647
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/17/2023 02:47	WG2115647
Trichloroethene	0.574		0.0160	0.0400	1	08/17/2023 02:47	WG2115647
Trichlorofluoromethane	U		0.0200	0.100	1	08/17/2023 02:47	WG2115647
1,2,3-Trichloropropane	U		0.204	0.500	1	08/17/2023 02:47	WG2115647
1,2,4-Trimethylbenzene	0.103	J	0.0464	0.200	1	08/17/2023 02:47	WG2115647
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/17/2023 02:47	WG2115647
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/17/2023 02:47	WG2115647
Vinyl acetate	U UJ	C3	0.141	0.500	1	08/17/2023 02:47	WG2115647
Vinyl chloride	1.61		0.0273	0.100	1	08/17/2023 02:47	WG2115647
Xylenes, Total	0.372		0.191	0.260	1	08/17/2023 02:47	WG2115647
(S) Toluene-d8	*112*			*75.0-131*		*08/17/2023 02:47*	WG2115647
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*08/17/2023 02:47*	WG2115647
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*		*08/17/2023 02:47*	WG2115647

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Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	31700		379	1000	1	08/16/2023 21:51	WG2115051
Nitrate	U		48.0	100	1	08/16/2023 21:51	WG2115051
Sulfate	31300		594	5000	1	08/16/2023 21:51	WG2115051

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1640		102	1000	1	08/21/2023 18:08	WG2117713

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	2090		0.287	0.678	1	08/23/2023 14:23	WG2118962
Ethane	2.95		0.296	1.29	1	08/23/2023 14:23	WG2118962
Ethene	11.3		0.422	1.27	1	08/23/2023 14:23	WG2118962

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	6.69		0.548	1.00	1	08/17/2023 02:28	WG2115647
Acrylonitrile	U		0.0760	0.500	1	08/17/2023 02:28	WG2115647
Benzene	U		0.0160	0.0400	1	08/17/2023 02:28	WG2115647
Bromobenzene	U	~~J4~~	0.0420	0.500	1	08/17/2023 02:28	WG2115647
Bromochloromethane	U		0.0452	0.200	1	08/17/2023 02:28	WG2115647
Bromodichloromethane	U		0.0315	0.100	1	08/17/2023 02:28	WG2115647
Bromoform	U		0.239	1.00	1	08/17/2023 02:28	WG2115647
Bromomethane	U		0.148	0.500	1	08/17/2023 02:28	WG2115647
n-Butylbenzene	U		0.153	0.500	1	08/17/2023 02:28	WG2115647
sec-Butylbenzene	U		0.101	0.500	1	08/17/2023 02:28	WG2115647
tert-Butylbenzene	U		0.0620	0.200	1	08/17/2023 02:28	WG2115647
Carbon disulfide	0.231	J	0.162	0.500	1	08/17/2023 02:28	WG2115647
Carbon tetrachloride	U		0.0432	0.200	1	08/17/2023 02:28	WG2115647
Chlorobenzene	U		0.0229	0.100	1	08/17/2023 02:28	WG2115647
Chlorodibromomethane	U		0.0180	0.100	1	08/17/2023 02:28	WG2115647
Chloroethane	U		0.0432	0.200	1	08/17/2023 02:28	WG2115647
Chloroform	U		0.0166	0.100	1	08/17/2023 02:28	WG2115647
Chloromethane	U		0.0556	0.500	1	08/17/2023 02:28	WG2115647
2-Chlorotoluene	U		0.0368	0.100	1	08/17/2023 02:28	WG2115647
4-Chlorotoluene	U		0.0452	0.200	1	08/17/2023 02:28	WG2115647
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/17/2023 02:28	WG2115647
1,2-Dibromoethane	U		0.0210	0.100	1	08/17/2023 02:28	WG2115647
Dibromomethane	U		0.0400	0.200	1	08/17/2023 02:28	WG2115647
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/17/2023 02:28	WG2115647
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/17/2023 02:28	WG2115647
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/17/2023 02:28	WG2115647
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/17/2023 02:28	WG2115647
Dichlorodifluoromethane	U		0.0327	0.100	1	08/17/2023 02:28	WG2115647
1,1-Dichloroethane	U		0.0230	0.100	1	08/17/2023 02:28	WG2115647
1,2-Dichloroethane	U		0.0190	0.100	1	08/17/2023 02:28	WG2115647
1,1-Dichloroethene	0.0390	J	0.0200	0.100	1	08/17/2023 02:28	WG2115647
cis-1,2-Dichloroethene	1.61		0.0276	0.100	1	08/17/2023 02:28	WG2115647
trans-1,2-Dichloroethene	U		0.0572	0.200	1	08/17/2023 02:28	WG2115647
1,2-Dichloropropane	U		0.0508	0.200	1	08/17/2023 02:28	WG2115647
1,1-Dichloropropene	U		0.0280	0.100	1	08/17/2023 02:28	WG2115647

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Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,3-Dichloropropane	U		0.0700	0.200	1	08/17/2023 02:28	WG2115647
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/17/2023 02:28	WG2115647
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/17/2023 02:28	WG2115647
2,2-Dichloropropane	U		0.0317	0.100	1	08/17/2023 02:28	WG2115647
Di-isopropyl ether	U		0.0140	0.0400	1	08/17/2023 02:28	WG2115647
Ethylbenzene	U		0.0212	0.100	1	08/17/2023 02:28	WG2115647
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/17/2023 02:28	WG2115647
2-Hexanone	U		0.400	1.00	1	08/17/2023 02:28	WG2115647
n-Hexane	U		0.0424	0.200	1	08/17/2023 02:28	WG2115647
Iodomethane	U		0.242	0.500	1	08/17/2023 02:28	WG2115647
Isopropylbenzene	U		0.0345	0.100	1	08/17/2023 02:28	WG2115647
p-Isopropyltoluene	U		0.0932	0.200	1	08/17/2023 02:28	WG2115647
2-Butanone (MEK)	U		0.500	1.00	1	08/17/2023 02:28	WG2115647
Methylene Chloride	U		0.265	1.00	1	08/17/2023 02:28	WG2115647
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/17/2023 02:28	WG2115647
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/17/2023 02:28	WG2115647
Naphthalene	U		0.124	0.500	1	08/17/2023 02:28	WG2115647
n-Propylbenzene	U		0.0472	0.200	1	08/17/2023 02:28	WG2115647
Styrene	U		0.109	0.500	1	08/17/2023 02:28	WG2115647
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/17/2023 02:28	WG2115647
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/17/2023 02:28	WG2115647
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/17/2023 02:28	WG2115647
Tetrachloroethene	0.0970	J	0.0280	0.100	1	08/17/2023 02:28	WG2115647
Toluene	0.0550 U	~~J~~	0.0500	0.200	1	08/17/2023 02:28	WG2115647
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/17/2023 02:28	WG2115647
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/17/2023 02:28	WG2115647
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/17/2023 02:28	WG2115647
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/17/2023 02:28	WG2115647
Trichloroethene	0.231		0.0160	0.0400	1	08/17/2023 02:28	WG2115647
Trichlorofluoromethane	U		0.0200	0.100	1	08/17/2023 02:28	WG2115647
1,2,3-Trichloropropane	U		0.204	0.500	1	08/17/2023 02:28	WG2115647
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	08/17/2023 02:28	WG2115647
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/17/2023 02:28	WG2115647
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/17/2023 02:28	WG2115647
Vinyl acetate	U UJ	C3	0.141	0.500	1	08/17/2023 02:28	WG2115647
Vinyl chloride	10.5		0.0273	0.100	1	08/17/2023 02:28	WG2115647
Xylenes, Total	U		0.191	0.260	1	08/17/2023 02:28	WG2115647
(S) Toluene-d8	*111*			*75.0-131*		*08/17/2023 02:28*	WG2115647
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*08/17/2023 02:28*	WG2115647
(S) 1,2-Dichloroethane-d4	*95.1*			*70.0-130*		*08/17/2023 02:28*	WG2115647

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Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	41100		379	1000	1	08/16/2023 22:36	WG2115051
Nitrate	U		48.0	100	1	08/16/2023 22:36	WG2115051
Sulfate	14200		594	5000	1	08/16/2023 22:36	WG2115051

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	4280		102	1000	1	08/21/2023 19:27	WG2117713

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	25300		2.87	6.78	10	08/24/2023 11:44	WG2119823
Ethane	4.24		0.296	1.29	1	08/23/2023 14:28	WG2118962
Ethene	68.4		0.422	1.27	1	08/23/2023 14:28	WG2118962

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Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	37200		379	1000	1	08/16/2023 22:51	WG2115051
Nitrate	U		48.0	100	1	08/16/2023 22:51	WG2115051
Sulfate	12400		594	5000	1	08/16/2023 22:51	WG2115051

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3200		102	1000	1	08/21/2023 19:46	WG2117713

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	19400		2.87	6.78	10	08/24/2023 11:50	WG2119823
Ethane	1.42		0.296	1.29	1	08/23/2023 14:35	WG2118962
Ethene	6.16		0.422	1.27	1	08/23/2023 14:35	WG2118962

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	5.27		0.548	1.00	1	08/17/2023 02:09	WG2115647
Acrylonitrile	U		0.0760	0.500	1	08/17/2023 02:09	WG2115647
Benzene	U		0.0160	0.0400	1	08/17/2023 02:09	WG2115647
Bromobenzene	U	~~J4~~	0.0420	0.500	1	08/17/2023 02:09	WG2115647
Bromochloromethane	U		0.0452	0.200	1	08/17/2023 02:09	WG2115647
Bromodichloromethane	U		0.0315	0.100	1	08/17/2023 02:09	WG2115647
Bromoform	U		0.239	1.00	1	08/17/2023 02:09	WG2115647
Bromomethane	U		0.148	0.500	1	08/17/2023 02:09	WG2115647
n-Butylbenzene	U		0.153	0.500	1	08/17/2023 02:09	WG2115647
sec-Butylbenzene	U		0.101	0.500	1	08/17/2023 02:09	WG2115647
tert-Butylbenzene	U		0.0620	0.200	1	08/17/2023 02:09	WG2115647
Carbon disulfide	U		0.162	0.500	1	08/17/2023 02:09	WG2115647
Carbon tetrachloride	U		0.0432	0.200	1	08/17/2023 02:09	WG2115647
Chlorobenzene	U		0.0229	0.100	1	08/17/2023 02:09	WG2115647
Chlorodibromomethane	U		0.0180	0.100	1	08/17/2023 02:09	WG2115647
Chloroethane	U		0.0432	0.200	1	08/17/2023 02:09	WG2115647
Chloroform	U		0.0166	0.100	1	08/17/2023 02:09	WG2115647
Chloromethane	U		0.0556	0.500	1	08/17/2023 02:09	WG2115647
2-Chlorotoluene	U		0.0368	0.100	1	08/17/2023 02:09	WG2115647
4-Chlorotoluene	U		0.0452	0.200	1	08/17/2023 02:09	WG2115647
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	08/17/2023 02:09	WG2115647
1,2-Dibromoethane	U		0.0210	0.100	1	08/17/2023 02:09	WG2115647
Dibromomethane	U		0.0400	0.200	1	08/17/2023 02:09	WG2115647
1,2-Dichlorobenzene	U		0.0580	0.200	1	08/17/2023 02:09	WG2115647
1,3-Dichlorobenzene	U		0.0680	0.200	1	08/17/2023 02:09	WG2115647
1,4-Dichlorobenzene	U		0.0788	0.200	1	08/17/2023 02:09	WG2115647
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	08/17/2023 02:09	WG2115647
Dichlorodifluoromethane	U		0.0327	0.100	1	08/17/2023 02:09	WG2115647
1,1-Dichloroethane	U		0.0230	0.100	1	08/17/2023 02:09	WG2115647
1,2-Dichloroethane	U		0.0190	0.100	1	08/17/2023 02:09	WG2115647
1,1-Dichloroethene	U		0.0200	0.100	1	08/17/2023 02:09	WG2115647
cis-1,2-Dichloroethene	1.44		0.0276	0.100	1	08/17/2023 02:09	WG2115647
trans-1,2-Dichloroethene	U		0.0572	0.200	1	08/17/2023 02:09	WG2115647
1,2-Dichloropropane	U		0.0508	0.200	1	08/17/2023 02:09	WG2115647
1,1-Dichloropropene	U		0.0280	0.100	1	08/17/2023 02:09	WG2115647

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Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,3-Dichloropropane	U		0.0700	0.200	1	08/17/2023 02:09	WG2115647
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/17/2023 02:09	WG2115647
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/17/2023 02:09	WG2115647
2,2-Dichloropropane	U		0.0317	0.100	1	08/17/2023 02:09	WG2115647
Di-isopropyl ether	U		0.0140	0.0400	1	08/17/2023 02:09	WG2115647
Ethylbenzene	U		0.0212	0.100	1	08/17/2023 02:09	WG2115647
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/17/2023 02:09	WG2115647
2-Hexanone	U		0.400	1.00	1	08/17/2023 02:09	WG2115647
n-Hexane	U		0.0424	0.200	1	08/17/2023 02:09	WG2115647
Iodomethane	U		0.242	0.500	1	08/17/2023 02:09	WG2115647
Isopropylbenzene	U		0.0345	0.100	1	08/17/2023 02:09	WG2115647
p-Isopropyltoluene	U		0.0932	0.200	1	08/17/2023 02:09	WG2115647
2-Butanone (MEK)	U		0.500	1.00	1	08/17/2023 02:09	WG2115647
Methylene Chloride	U		0.265	1.00	1	08/17/2023 02:09	WG2115647
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/17/2023 02:09	WG2115647
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/17/2023 02:09	WG2115647
Naphthalene	U		0.124	0.500	1	08/17/2023 02:09	WG2115647
n-Propylbenzene	U		0.0472	0.200	1	08/17/2023 02:09	WG2115647
Styrene	U		0.109	0.500	1	08/17/2023 02:09	WG2115647
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/17/2023 02:09	WG2115647
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/17/2023 02:09	WG2115647
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/17/2023 02:09	WG2115647
Tetrachloroethene	0.0410	J	0.0280	0.100	1	08/17/2023 02:09	WG2115647
Toluene	0.117 U	~~J~~	0.0500	0.200	1	08/17/2023 02:09	WG2115647
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/17/2023 02:09	WG2115647
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/17/2023 02:09	WG2115647
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/17/2023 02:09	WG2115647
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/17/2023 02:09	WG2115647
Trichloroethene	0.0720		0.0160	0.0400	1	08/17/2023 02:09	WG2115647
Trichlorofluoromethane	U		0.0200	0.100	1	08/17/2023 02:09	WG2115647
1,2,3-Trichloropropane	U		0.204	0.500	1	08/17/2023 02:09	WG2115647
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	08/17/2023 02:09	WG2115647
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/17/2023 02:09	WG2115647
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/17/2023 02:09	WG2115647
Vinyl acetate	U UJ	C3	0.141	0.500	1	08/17/2023 02:09	WG2115647
Vinyl chloride	4.30		0.0273	0.100	1	08/17/2023 02:09	WG2115647
Xylenes, Total	U		0.191	0.260	1	08/17/2023 02:09	WG2115647
(S) Toluene-d8	*110*			*75.0-131*		*08/17/2023 02:09*	WG2115647
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*08/17/2023 02:09*	WG2115647
(S) 1,2-Dichloroethane-d4	*96.7*			*70.0-130*		*08/17/2023 02:09*	WG2115647

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Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	15500		379	1000	1	08/16/2023 23:06	WG2115051
Nitrate	U		48.0	100	1	08/16/2023 23:06	WG2115051
Sulfate	36900		594	5000	1	08/16/2023 23:06	WG2115051

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1600		102	1000	1	08/21/2023 20:54	WG2117713

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	2350		0.287	0.678	1	08/23/2023 14:41	WG2118962
Ethane	8.50		0.296	1.29	1	08/23/2023 14:41	WG2118962
Ethene	16.2		0.422	1.27	1	08/23/2023 14:41	WG2118962

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result		Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l			ug/l	ug/l		date / time	
Acetone	1.46	U		0.548	1.00	1	08/17/2023 01:50	WG2115647
Acrylonitrile	U			0.0760	0.500	1	08/17/2023 01:50	WG2115647
Benzene	U			0.0160	0.0400	1	08/17/2023 01:50	WG2115647
Bromobenzene	U		~~J4~~	0.0420	0.500	1	08/17/2023 01:50	WG2115647
Bromochloromethane	U			0.0452	0.200	1	08/17/2023 01:50	WG2115647
Bromodichloromethane	U			0.0315	0.100	1	08/17/2023 01:50	WG2115647
Bromoform	U			0.239	1.00	1	08/17/2023 01:50	WG2115647
Bromomethane	U			0.148	0.500	1	08/17/2023 01:50	WG2115647
n-Butylbenzene	U			0.153	0.500	1	08/17/2023 01:50	WG2115647
sec-Butylbenzene	U			0.101	0.500	1	08/17/2023 01:50	WG2115647
tert-Butylbenzene	U			0.0620	0.200	1	08/17/2023 01:50	WG2115647
Carbon disulfide	0.181		J	0.162	0.500	1	08/17/2023 01:50	WG2115647
Carbon tetrachloride	U			0.0432	0.200	1	08/17/2023 01:50	WG2115647
Chlorobenzene	U			0.0229	0.100	1	08/17/2023 01:50	WG2115647
Chlorodibromomethane	U			0.0180	0.100	1	08/17/2023 01:50	WG2115647
Chloroethane	U			0.0432	0.200	1	08/17/2023 01:50	WG2115647
Chloroform	U			0.0166	0.100	1	08/17/2023 01:50	WG2115647
Chloromethane	U			0.0556	0.500	1	08/17/2023 01:50	WG2115647
2-Chlorotoluene	U			0.0368	0.100	1	08/17/2023 01:50	WG2115647
4-Chlorotoluene	U			0.0452	0.200	1	08/17/2023 01:50	WG2115647
1,2-Dibromo-3-Chloropropane	U			0.204	1.00	1	08/17/2023 01:50	WG2115647
1,2-Dibromoethane	U			0.0210	0.100	1	08/17/2023 01:50	WG2115647
Dibromomethane	U			0.0400	0.200	1	08/17/2023 01:50	WG2115647
1,2-Dichlorobenzene	U			0.0580	0.200	1	08/17/2023 01:50	WG2115647
1,3-Dichlorobenzene	U			0.0680	0.200	1	08/17/2023 01:50	WG2115647
1,4-Dichlorobenzene	U			0.0788	0.200	1	08/17/2023 01:50	WG2115647
trans-1,4-Dichloro-2-butene	U			0.0560	0.200	1	08/17/2023 01:50	WG2115647
Dichlorodifluoromethane	U			0.0327	0.100	1	08/17/2023 01:50	WG2115647
1,1-Dichloroethane	U			0.0230	0.100	1	08/17/2023 01:50	WG2115647
1,2-Dichloroethane	U			0.0190	0.100	1	08/17/2023 01:50	WG2115647
1,1-Dichloroethene	U			0.0200	0.100	1	08/17/2023 01:50	WG2115647
cis-1,2-Dichloroethene	U			0.0276	0.100	1	08/17/2023 01:50	WG2115647
trans-1,2-Dichloroethene	U			0.0572	0.200	1	08/17/2023 01:50	WG2115647
1,2-Dichloropropane	U			0.0508	0.200	1	08/17/2023 01:50	WG2115647
1,1-Dichloropropene	U			0.0280	0.100	1	08/17/2023 01:50	WG2115647

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Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,3-Dichloropropane	U		0.0700	0.200	1	08/17/2023 01:50	WG2115647
cis-1,3-Dichloropropene	U		0.0271	0.100	1	08/17/2023 01:50	WG2115647
trans-1,3-Dichloropropene	U		0.0612	0.200	1	08/17/2023 01:50	WG2115647
2,2-Dichloropropane	U		0.0317	0.100	1	08/17/2023 01:50	WG2115647
Di-isopropyl ether	U		0.0140	0.0400	1	08/17/2023 01:50	WG2115647
Ethylbenzene	0.0340	J	0.0212	0.100	1	08/17/2023 01:50	WG2115647
Hexachloro-1,3-butadiene	U		0.508	1.00	1	08/17/2023 01:50	WG2115647
2-Hexanone	U		0.400	1.00	1	08/17/2023 01:50	WG2115647
n-Hexane	U		0.0424	0.200	1	08/17/2023 01:50	WG2115647
Iodomethane	U		0.242	0.500	1	08/17/2023 01:50	WG2115647
Isopropylbenzene	U		0.0345	0.100	1	08/17/2023 01:50	WG2115647
p-Isopropyltoluene	U		0.0932	0.200	1	08/17/2023 01:50	WG2115647
2-Butanone (MEK)	U		0.500	1.00	1	08/17/2023 01:50	WG2115647
Methylene Chloride	U		0.265	1.00	1	08/17/2023 01:50	WG2115647
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	08/17/2023 01:50	WG2115647
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/17/2023 01:50	WG2115647
Naphthalene	U		0.124	0.500	1	08/17/2023 01:50	WG2115647
n-Propylbenzene	U		0.0472	0.200	1	08/17/2023 01:50	WG2115647
Styrene	U		0.109	0.500	1	08/17/2023 01:50	WG2115647
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	08/17/2023 01:50	WG2115647
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	08/17/2023 01:50	WG2115647
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	08/17/2023 01:50	WG2115647
Tetrachloroethene	U		0.0280	0.100	1	08/17/2023 01:50	WG2115647
Toluene	0.172	U J	0.0500	0.200	1	08/17/2023 01:50	WG2115647
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	08/17/2023 01:50	WG2115647
1,2,4-Trichlorobenzene	U		0.193	0.500	1	08/17/2023 01:50	WG2115647
1,1,1-Trichloroethane	U		0.0110	0.100	1	08/17/2023 01:50	WG2115647
1,1,2-Trichloroethane	U		0.0353	0.100	1	08/17/2023 01:50	WG2115647
Trichloroethene	U		0.0160	0.0400	1	08/17/2023 01:50	WG2115647
Trichlorofluoromethane	U		0.0200	0.100	1	08/17/2023 01:50	WG2115647
1,2,3-Trichloropropane	U		0.204	0.500	1	08/17/2023 01:50	WG2115647
1,2,4-Trimethylbenzene	0.0730	J	0.0464	0.200	1	08/17/2023 01:50	WG2115647
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	08/17/2023 01:50	WG2115647
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	08/17/2023 01:50	WG2115647
Vinyl acetate	U UJ	C3	0.141	0.500	1	08/17/2023 01:50	WG2115647
Vinyl chloride	2.89		0.0273	0.100	1	08/17/2023 01:50	WG2115647
Xylenes, Total	U		0.191	0.260	1	08/17/2023 01:50	WG2115647
(S) Toluene-d8	*114*			*75.0-131*		*08/17/2023 01:50*	WG2115647
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*08/17/2023 01:50*	WG2115647
(S) 1,2-Dichloroethane-d4	*95.5*			*70.0-130*		*08/17/2023 01:50*	WG2115647

JC 10/14/23

MEMORANDUM

TO: Project File **DATE:** October 11, 2023

FROM: Jessie Compeau

SUBJECT: Laboratory Data Validation Review

PROJECT: American Linen Data Validation

PROJECT #: 443022-1413001.10.701.03

TASK: EIM Data Validation Level EPA2A for Q3 2023 – Soil Vapor Samples

LAB: Pace Sample Delivery Groups (SDGs): L1645594, L1645592, and L1645619

Nine soil vapor samples including one field duplicate were collected as part of the 2023 quarterly (Q3) monitoring event at the Former American Linen Supply Site, in Seattle, Washington on August 9-11, 2023. The samples were shipped and delivered to Pace Lab Sciences (Pace) of Mount Juliet, TN for laboratory analysis. Samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method TO-15.

The third quarter of RI sampling was conducted in August 2023. Results for groundwater are reported in several Sample Delivery Groups (SDGs) by Pace. The quality assurance review of the soil vapor extraction sample data associated with SDGs L1645594, L1645592, and L1645619 are summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for a limited data validation review of analytical data along with Pace control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2020). Following Guidelines, non-project-specific laboratory duplicates and matrix spike results were not evaluated as part of this data validation.

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

The laboratory supplied Summa Canister ™ (1 Liter) for the air samples. The samples were shipped, delivered by FedEx, and received in good condition by the laboratory. The samples

were collected, handled, and delivered in an appropriate manner. No data qualifications were warranted based upon sampling techniques or preservation.

Holding Times

USEPA Method TO-15:
The analyses for VOCs by Method TO-15 were performed within the 30-day recommended holding time limit for the air samples collected in Summa canisters. All holding time criteria are met.

Initial and Continuing Calibration

Initial and continuing calibration data for this project are retained by the laboratory and available for review if necessary. Case narrative and laboratory notes do not indicate that there are any issues with calibration.

Method Blank Results

USEPA Method TO-15:
A laboratory method blank is included with the analytical batch per method requirement. The target analytes were not detected in the method blank at or above the reporting detection limits (RDLs) with the following discussions:

- SDGs L1645592 and L1645619 - Analytical Batch WG2114251: A low level of ethanol is detected below the RDL in the method blank. No action is needed since ethanol is detected above the RDL in the associated samples.

- SDG L1645594 - Analytical Batch WG2114306: Low levels of ethanol and propene are detected below the RDL in the method blank. No action is needed since these compounds are either not detected or detected above the RDL in the associated samples.

Trip Blank Results

A trip blank is not required for the VOCs by TO-15 analyses. No action is taken other than to note this.

Field Duplicate Analyses

Field duplicates (SV01-080923 and SV-910-080923) associated with SDG L1645594 were submitted and analyzed. VOC target analyte results are comparable and within 30 relative percent difference (RPD) or ($\pm$1x RDL for detections <5x RDL) with the following exceptions:

- SDG L1645594: Field duplicate samples SV01-080923 and SV-910-080923 – Chloroform, cyclohexane, ethanol, methylene chloride, and tetrachloroethene RPDs or absolute differences exceed criteria for field duplicate pair. **Chloroform, cyclohexane, ethanol, methylene chloride, and tetrachloroethene results for samples SV01-080923 and SV-910-080923 are estimated and qualified (UJ/J).**

Laboratory Duplicate/Replicate Analyses

USEPA Method TO-15:
A laboratory replicate was not performed. Refer to the Laboratory Control Sample section for additional information.

Surrogate Recoveries

USEPA Method TO-15
The surrogate percent recovery (% R) results for the VOCs by TO-15 air samples, method blanks, and laboratory control sample are within the laboratory surrogate control limits of 60 - 140% R.

Laboratory Control Samples

USEPA Method TO-15:
Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) samples were analyzed for the VOCs by TO-15 along with each analytical batch. The LCS/LCSD recoveries and relative percent differences (RPDs) for all control compounds met laboratory control limit criteria.

Matrix Spike/Matrix Spike Duplicates

A matrix spike/matrix spike duplicate (MS/MSD) is not required for the VOCs by TO-15.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report with the following discussion:

- Electronic data deliverables (EDDs) for these SDGs were provided by the laboratory and data validator qualifiers were entered. In some cases, different chemical synonyms are used between the EDD and the hardcopy. However, associated Chemical Abstracts Service (CAS) numbers are provided in the EDD to confirm chemical identifications.

Quantitation Limits

Results of the VOCs by TO-15 analysis are reported based on laboratory RDLs (assuming standard temperature and pressure is equal to 24.45) and reported in units of parts per million volume (ppbv) and micrograms per cubic meter ($\mu g/m^3$). Quality control results are reported in ppbv units only.

The RDLs indicate the minimum quantity of a target analyte that can be confidently determined by the reference method. The RDLs were acceptable for the project; therefore, no data qualifications were warranted with the following discussion:

- SDG L1645592: Sample SV-23-081023 ethanol result is laboratory qualified (E) to indicate that the compound is off-scale and exceeds the upper limit of the initial calibration range. **Sample SV-23-081023 ethanol result is estimated and qualified (J).**

Data Assessment

The laboratory data reported for this project were reviewed based on the criteria outlined in:

- USEPA National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2020).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data, including qualified data, are judged to be acceptable for their intended use.

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	42.9	102		1	WG2114251
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2114251
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2114251
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2114251
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2114251
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2114251
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2114251
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2114251
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.435	1.35		1	WG2114251
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2114251
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2114251
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2114251
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2114251
Chloromethane	74-87-3	50.50	0.200	0.413	0.536	1.11		1	WG2114251
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2114251
Cyclohexane	110-82-7	84.20	0.200	0.689	5.35	18.4		1	WG2114251
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2114251
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2114251
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2114251
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2114251
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2114251
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2114251
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2114251
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2114251
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2114251
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2114251
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2114251
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2114251
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2114251
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2114251
Ethanol	64-17-5	46.10	2.50	4.71	240	453	J E	1	WG2114251
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2114251
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2114251
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.209	1.17		1	WG2114251
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.412	2.04		1	WG2114251
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2114251
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2114251
Heptane	142-82-5	100	0.200	0.818	0.806	3.30		1	WG2114251
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2114251
n-Hexane	110-54-3	86.20	0.630	2.22	6.27	22.1		1	WG2114251
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2114251
Methylene Chloride	75-09-2	84.90	0.200	0.694	9.65	33.5		1	WG2114251
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2114251
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	2.99	8.82		1	WG2114251
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2114251
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2114251
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2114251
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2114251
2-Propanol	67-63-0	60.10	1.25	3.07	16.6	40.8		1	WG2114251
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2114251
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2114251
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2114251
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.215	1.46		1	WG2114251
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	7.69	22.7		1	WG2114251
Toluene	108-88-3	92.10	0.500	1.88	2.56	9.64		1	WG2114251
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2114251

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2114251
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2114251
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2114251
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2114251
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2114251
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2114251
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2114251
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2114251
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2114251
Xylenes, Total	1330-20-7	106.16	0.600	2.61	ND	ND		1	WG2114251
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2114251
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2114251
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*96.8*				WG2114251

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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	14.2	33.7		1	WG2114306
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2114306
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2114306
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2114306
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2114306
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2114306
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2114306
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2114306
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2114306
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2114306
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2114306
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2114306
Chloroform	67-66-3	119	0.200	0.973	0.524	2.55	J J	1	WG2114306
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2114306
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2114306
Cyclohexane	110-82-7	84.20	0.200	0.689	2.11	7.27	J J	1	WG2114306
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2114306
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2114306
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2114306
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2114306
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2114306
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2114306
1,1-Dichloroethane	75-34-3	98	0.200	0.802	1.57	6.29		1	WG2114306
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2114306
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2114306
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2114306
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2114306
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2114306
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2114306
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2114306
Ethanol	64-17-5	46.10	2.50	4.71	20.3	38.3	J J	1	WG2114306
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2114306
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.307	1.51		1	WG2114306
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2114306
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND		1	WG2114306
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2114306
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2114306
Heptane	142-82-5	100	0.200	0.818	0.379	1.55		1	WG2114306
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2114306
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2114306
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2114306
Methylene Chloride	75-09-2	84.90	0.200	0.694	1.74	6.04	J J	1	WG2114306
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2114306
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2114306
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2114306
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2114306
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2114306
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2114306
2-Propanol	67-63-0	60.10	1.25	3.07	2.20	5.41		1	WG2114306
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2114306
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2114306
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2114306
Tetrachloroethylene	127-18-4	166	0.200	1.36	1.12	7.60	J J	1	WG2114306
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2114306
Toluene	108-88-3	92.10	0.500	1.88	0.888	3.34		1	WG2114306
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2114306

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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	3.66	19.9		1	WG2114306
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2114306
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2114306
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.475	2.33		1	WG2114306
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2114306
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2114306
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2114306
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2114306
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2114306
Xylenes, Total	1330-20-7	106.16	0.600	2.61	1.01	4.39		1	WG2114306
m&p-Xylene	1330-20-7	106	0.400	1.73	0.705	3.06		1	WG2114306
o-Xylene	95-47-6	106	0.200	0.867	0.308	1.34		1	WG2114306
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*100*				WG2114306

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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	11.1	26.4		1	WG2114306
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2114306
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2114306
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2114306
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2114306
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2114306
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2114306
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2114306
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2114306
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2114306
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2114306
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2114306
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2114306
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2114306
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	UJ	ND UJ	1	WG2114306
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	UJ	ND UJ	1	WG2114306
Dibromochloromethane	124-48-1	208	0.200	1.70	ND		ND	1	WG2114306
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND		ND	1	WG2114306
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND		ND	1	WG2114306
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND		ND	1	WG2114306
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND		ND	1	WG2114306
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND		ND	1	WG2114306
1,1-Dichloroethane	75-34-3	98	0.200	0.802	1.73		6.93	1	WG2114306
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND		ND	1	WG2114306
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND		ND	1	WG2114306
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND		ND	1	WG2114306
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND		ND	1	WG2114306
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND		ND	1	WG2114306
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND		ND	1	WG2114306
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND		ND	1	WG2114306
Ethanol	64-17-5	46.10	2.50	4.71	5.48	J	10.3 J	1	WG2114306
Ethylbenzene	100-41-4	106	0.200	0.867	ND		ND	1	WG2114306
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.296		1.45	1	WG2114306
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND		ND	1	WG2114306
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND		ND	1	WG2114306
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND		ND	1	WG2114306
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND		ND	1	WG2114306
Heptane	142-82-5	100	0.200	0.818	ND		ND	1	WG2114306
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND		ND	1	WG2114306
n-Hexane	110-54-3	86.20	0.630	2.22	ND		ND	1	WG2114306
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND		ND	1	WG2114306
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.218	J	0.757 J	1	WG2114306
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND		ND	1	WG2114306
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	2.42		7.14	1	WG2114306
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND		ND	1	WG2114306
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND		ND	1	WG2114306
MTBE	1634-04-4	88.10	0.200	0.721	ND		ND	1	WG2114306
Naphthalene	91-20-3	128	0.630	3.30	ND		ND	1	WG2114306
2-Propanol	67-63-0	60.10	1.25	3.07	1.91		4.69	1	WG2114306
Propene	115-07-1	42.10	1.25	2.15	ND		ND	1	WG2114306
Styrene	100-42-5	104	0.200	0.851	ND		ND	1	WG2114306
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND		ND	1	WG2114306
Tetrachloroethylene	127-18-4	166	0.200	1.36	1.99	J	13.5 J	1	WG2114306
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND		ND	1	WG2114306
Toluene	108-88-3	92.10	0.500	1.88	0.798		3.01	1	WG2114306
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND		ND	1	WG2114306

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	4.00	21.8		1	WG2114306
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2114306
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2114306
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.332	1.63		1	WG2114306
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2114306
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2114306
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2114306
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2114306
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2114306
Xylenes, Total	1330-20-7	106.16	0.600	2.61	1.05	4.56		1	WG2114306
m&p-Xylene	1330-20-7	106	0.400	1.73	0.737	3.20		1	WG2114306
o-Xylene	95-47-6	106	0.200	0.867	0.316	1.37		1	WG2114306
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.6*				WG2114306

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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	3.52	8.36		1	WG2114251
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2114251
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2114251
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2114251
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2114251
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2114251
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2114251
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2114251
Carbon disulfide	75-15-0	76.10	0.200	0.622	11.6	36.1		1	WG2114251
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2114251
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2114251
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2114251
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2114251
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2114251
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2114251
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2114251
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2114251
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2114251
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2114251
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2114251
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2114251
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2114251
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2114251
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2114251
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2114251
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2114251
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2114251
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2114251
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2114251
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2114251
Ethanol	64-17-5	46.10	2.50	4.71	3.90	7.35	B	1	WG2114251
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2114251
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2114251
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.994	5.59		1	WG2114251
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.514	2.54		1	WG2114251
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2114251
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2114251
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2114251
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2114251
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2114251
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2114251
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.259	0.899		1	WG2114251
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2114251
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2114251
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2114251
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2114251
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2114251
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2114251
2-Propanol	67-63-0	60.10	1.25	3.07	1.88	4.62		1	WG2114251
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2114251
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2114251
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2114251
Tetrachloroethylene	127-18-4	166	0.200	1.36	8.59	58.3		1	WG2114251
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2114251
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2114251
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2114251

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	1.46	7.94		1	WG2114251
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2114251
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2114251
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2114251
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2114251
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2114251
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2114251
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2114251
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2114251
Xylenes, Total	1330-20-7	106.16	0.600	2.61	ND	ND		1	WG2114251
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2114251
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2114251
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.2*				WG2114251

JC 10/12/23