Memorandum

TO: Dr. Mike Murphy

FROM: Tom Fitzwilliams, Clearstart Water

DATE: October 20, 2023

RE: Summary of Groundwater Analytical Results

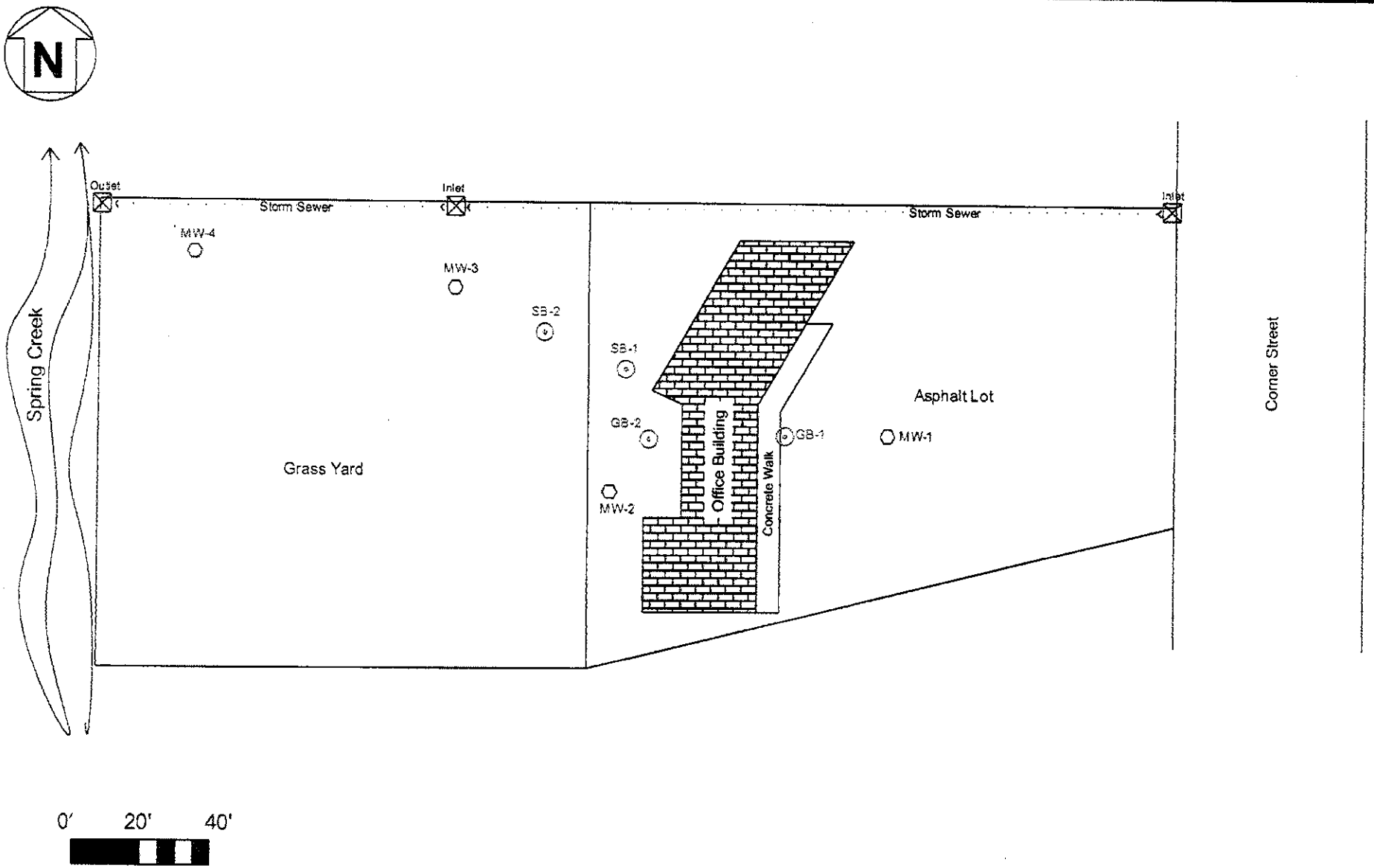
This memo provides a summary of the groundwater monitoring completed by Tom Fitzwilliams of Clearstart Water on October 12, 2023.

Groundwater samples were collected from three monitoring wells (MW-2, MW-3, and MW-4) on the Murphy property located at 602 Corner Street, Lodi, WI. Monitoring Well MW-1 did not have measurable groundwater in the well casing and a sample could not be collected. A map showing the location of each monitoring well is attached as Figure 1. Approximately five gallons of groundwater were purged from each monitoring well using disposable bailers. Groundwater samples were collected in preserved bottles and analyzed for Volatile Organic Chemicals (VOCs) using EPA method 8260 by CT Laboratories, a Wisconsin Certified Laboratory. The full laboratory analytical report is attached. Analytical data is summarized in the attached Table 1. The results of each monitoring well are summarized below.

- MW-1: MW-1 is located upgradient from the reported contaminant source area. Historic data indicates there was one low-level detection of Tetrachloroethylene (PCE) in the July 2000 sample, detected at 0.15 micrograms per liter (ug/L). A groundwater sample could not be collected from this well due to lack of water in the well. In addition, the flush mount lid is damaged.
- MW-2: MW-2 is located down and side gradient from the reported contaminant source area. Low-level detections of PCE were reported in samples collected from March through July 2000, ranging from 0.45 to 7.0 ug/L. Historic PCE detections at MW-2 were above the NR 140 Preventive Action Limit (PAL) of 0.5 ug/L. No VOCs were detected above the laboratory limit of detection (LOD) in the sample collected from MW-2 in October 2023.
- MW-3: MW-3 is located down gradient reported contaminant source area. Elevated concentrations of PCE were reported in samples collected from March through July 2000, ranging from 45 to 59 ug/L. Historic PCE detections were roughly 10 times higher than the NR 140 Enforcement Standard (ES) of 5 ug/L. The PCE concentration reported in the October 2023 sample event was 4.1 ug/L, which is lower than the ES, but higher than the PAL. No other VOCs were detected above the LOD in the sample from MW-3. It is worth noting that there were detections of cis-1,2-Dichloroethene and Trichloroethene (TCE) in previous sampling events. These two chemicals are known to be degradation byproducts of PCE. These chemicals were not detected above the LOD in the sample collected in October 2023.
- MW-4: MW-4 is located further down gradient from the reported contaminant source area. PCE was reported at 0.31 ug/L in the sample collected in July 2000. No VOCs were detected above the LOD in the sample collected in October 2023.

Summary

- A groundwater sample could not be collected from monitoring well MW-1 due to lack of water in the well. If future groundwater samples are required at the location of MW-1, a new well may need to be constructed.
- No VOCs were detected above the LOD in the sample collected from MW-2 in October 2023.
- The PCE concentration reported in the October 2023 sample event was 4.1 ug/L, which is lower than the ES, but higher than the PAL. This detection is a 10-fold reduction from the last samples collected in 2000, which suggests a decreasing trend of PCE. No other VOCs were detected above the LOD in the sample from MW-3.
- No VOCs were detected above the LOD in the sample collected from MW-4 in October 2023.



MAXIM

Wausau, Wisconsin

FIGURE 1

SITE DIAGRAM
DR. MURPHY PROPERTY
LODI, WISCONSIN

PROJECT #:	2004901
DATE:	SEPT. 12, 2000
DRAWN BY:	ALT
REVIEWED BY:	GMA
SCALE:	1" = 30'

FILE: S:/autocad/murphy/04901 site.dwg

Table 1
Groundwater Analytical Results
Mike Murphy Property
Lodi, WI

Monitoring Well Location	MW-2				MW-3				MW-4				NR 140	NR 140
Collection Date	3/29/2000	5/20/2000	7/17/2000	10/12/2023	3/29/2000	5/20/2000	7/17/2000	10/12/2023	3/29/2000	5/20/2000	7/17/2000	10/12/2023	ES	PAL
Analyte	(only positive detections reported)				(only positive detections reported)				(only positive detections reported)					
1,1,1,2-Tetrachloroethane				<0.34				<0.34				<0.34	70	7
1,1,1-Trichloroethane				<0.38				<0.38				<0.38	200	40
1,1,2,2-Tetrachloroethane				<0.36				<0.36				<0.36	0.2	0.02
1,1,2-Trichloroethane				<0.27				<0.27				<0.27	5	0.5
1,1-Dichloroethane				<0.28				<0.28				<0.28	850	85
1,1-Dichloroethene				<0.49				<0.49				<0.49		
1,1-Dichloropropene				<0.41				<0.41				<0.41		
1,2,3-Trichlorobenzene				<0.43				<0.43				<0.43		
1,2,3-Trichloropropane				<0.35				<0.35				<0.35	60	12
1,2,4-Tricholorobenzene				<0.50				<0.50				<0.50	70	14
1,2,4-Trimethylbenzene				<0.34				<0.34				<0.34	480	96
1,2-Dibromo-3-chloropropane				<0.49				<0.49				<0.49	0.2	0.02
1,2-Dibromoethane				<0.33				<0.33				<0.33	0.05	0.005
1,2-Dichlorobenzene				<0.36				<0.36				<0.36	600	60
1,2-Dichloroethane				<0.69				<0.69				<0.69	5	0.5
1,2-Dichloropropane				<0.37				<0.37				<0.37	5	0.5
1,3,5-Trimethlybenzene				<0.30				<0.30				<0.30	480	96
1,3-Dichlorobenzene				<0.30				<0.30				<0.30	600	120
1,3-Dichloropropane				<0.28				<0.28				<0.28	0.4	0.04
1,4-Dichlorobenzene				<0.33				<0.33				<0.33	75	15
2,2-Dichloropropane				<0.31				<0.31				<0.31		
2-Butanone				<2.9				<2.9				<2.9		
2-Chlorotoluene				<0.31				<0.31				<0.31		
2-Hexanone				<3.3				<3.3				<3.3		
4-Chlorotoluene				<0.31				<0.31				<0.31		
4-Methyl-2-pentanone				<3.7				<3.7				<3.7		
Acetone				<4.1				<4.1				<4.1	9000	1800
Benzene				<0.40				<0.40				<0.40	5	0.5
Bromobenzene				<0.33				<0.33				<0.33		
Bromochlorobenzene				<0.26				<0.26				<0.26		
Bromodichloromethane				<0.76				<0.76				<0.76	0.6	0.06
Bromoform				<0.50				<0.50				<0.50	4.4	0.44
Bromoethane				<0.72				<0.72				<0.72	10	1
Carbon disufide				<0.83				<0.83				<0.83	1000	200
Carbon tetrachloride				<0.37				<0.37				<0.37	5	0.5
Chlorobenzene				<0.37				<0.37				<0.37		
Chloroethane				<1.1				<1.1				<1.1	400	80
Chloroform				<0.46				<0.46				<0.46	6	0.6
Chloromethane				<1.3				<1.3				<1.3	30	3
cis-1,2-Dichloroethene				<0.41	**7.8**	6.2	4.3	<0.41			4.3	<0.41		
cis-1,2-Dichloropropene				<0.34				<0.34				<0.34		
Dibromochloromethane				<0.36				<0.36				<0.36	60	6
Dibromomethane				<0.45				<0.45				<0.45		
Dichlorodifluoromethane				<0.63				<0.63				<0.63		
Diisopropyl ether				<0.26				<0.26				<0.26		
Ethylbenzene				<0.42				<0.42				<0.42	700	140
Hexachlorobutadiene				<0.57				<0.57				<0.57		
Isopropylbenzene				<0.39				<0.39				<0.39		
m & p-Xylene				<0.74				<0.74				<0.74	2	0.4
Methyl tert-butyl ether				<0.28				<0.28				<0.28	60	12
Methylene chloride				<1.2				<1.2				<1.2	5	0.5
n-Butylbenzene				<0.34				<0.34				<0.34		
n-Propylbenzene				<0.34				<0.34				<0.34		
Napthanlene				<0.35				<0.35				<0.35	100	10
o-Xylene				<0.72				<0.72				<0.72	2	0.4
p-Isopropyltoluene				<0.29				<0.29				<0.29		
sec-Butylbenzene				<0.33				<0.33				<0.33		
Styrene				<0.33				<0.33				<0.33	100	10
tert-Butylbenzene				<0.27				<0.27				<0.27		
Tetrachloroethene	**0.45**	**7.0**	**1.6**	<0.55	**59**	**45**	**52**	**4.1**			0.31	<0.55	5	0.5
Tetrahyrdrofuran				<3.4				<3.4				<3.4	50	10
Toluene				<0.27				<0.27				<0.27	800	160
trans-1,2-Dichloroethene				<0.35				<0.35				<0.35		
trans-1,3-Dichloropropene				<0.57				<0.57				<0.57	0.4	0.04
Trichloroethene				<0.39	**1.4**	**1.4**	**1.6**	<0.39				<0.39	5	0.5
Trichlorofluoromethane				<0.41				<0.41				<0.41		
Vinyl acetate				<6.4				<6.4				<6.4		
Vinyl chloride				<0.15				<0.15				<0.15	0.2	0.02

Table Notes

4.1	Bold numbers indicate analyte detected above Preventive Action Limit
7	Shaded cells indicate analyte detected above Enforcement Standard

All results are reported in micrograms per liter (ug/L)

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ANALYTICAL REPORT

CLEARSTART WATER
TOM FITZWILLIAMS
127 10th AVE
BARABOO, WI 53913

Copy: tom@clearstartwater.com

Project Name: MURPHY
Project Phase:
Contract #: 3579
Project #:
Folder #: 181281
Purchase Order #:

Arrival Temperature: See COC
Report Date: 10/17/2023
Date Received: 10/11/2023
Reprint Date: 10/18/2023

CT LAB Sample#: 1382398 Sample Description: MW-2 Sampled: 10/10/2023 16:05

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.34	ug/L	0.34	1.2	1			10/12/2023 16:14	DGS	EPA 8260C
1,1,1-Trichloroethane	<0.38	ug/L	0.38	1.3	1			10/12/2023 16:14	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.36	ug/L	0.36	1.2	1			10/12/2023 16:14	DGS	EPA 8260C
1,1,2-Trichloroethane	<0.27	ug/L	0.27	1.0	1			10/12/2023 16:14	DGS	EPA 8260C
1,1-Dichloroethane	<0.28	ug/L	0.28	1.0	1			10/12/2023 16:14	DGS	EPA 8260C
1,1-Dichloroethene	<0.49	ug/L	0.49	1.7	1			10/12/2023 16:14	DGS	EPA 8260C
1,1-Dichloropropene	<0.41	ug/L	0.41	1.4	1			10/12/2023 16:14	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<0.43	ug/L	0.43	1.5	1			10/12/2023 16:14	DGS	EPA 8260C
1,2,3-Trichloropropane	<0.35	ug/L	0.35	1.2	1			10/12/2023 16:14	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<0.50	ug/L	0.50	1.7	1			10/12/2023 16:14	DGS	EPA 8260C
1,2,4-Trimethylbenzene	<0.34	ug/L	0.34	1.2	1			10/12/2023 16:14	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.49	ug/L	0.49	1.7	1	Z		10/12/2023 16:14	DGS	EPA 8260C
1,2-Dibromoethane	<0.33	ug/L	0.33	1.1	1			10/12/2023 16:14	DGS	EPA 8260C
1,2-Dichlorobenzene	<0.36	ug/L	0.36	1.2	1			10/12/2023 16:14	DGS	EPA 8260C
1,2-Dichloroethane	<0.69	ug/L	0.69	2.3	1			10/12/2023 16:14	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB Sample#: 1382398 Sample Description: MW-2 Sampled: 10/10/2023 16:05

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,2-Dichloropropane	<0.37	ug/L	0.37	1.3	1			10/12/2023 16:14	DGS	EPA 8260C
1,3,5-Trimethylbenzene	<0.30	ug/L	0.30	1.0	1			10/12/2023 16:14	DGS	EPA 8260C
1,3-Dichlorobenzene	<0.30	ug/L	0.30	1.0	1			10/12/2023 16:14	DGS	EPA 8260C
1,3-Dichloropropane	<0.28	ug/L	0.28	1.0	1			10/12/2023 16:14	DGS	EPA 8260C
1,4-Dichlorobenzene	<0.33	ug/L	0.33	1.1	1			10/12/2023 16:14	DGS	EPA 8260C
2,2-Dichloropropane	<0.31	ug/L	0.31	1.1	1	Y		10/12/2023 16:14	DGS	EPA 8260C
2-Butanone	<2.9	ug/L	2.9	10	1	Y		10/12/2023 16:14	DGS	EPA 8260C
2-Chlorotoluene	<0.31	ug/L	0.31	1.1	1			10/12/2023 16:14	DGS	EPA 8260C
2-Hexanone	<3.3	ug/L	3.3	11	1			10/12/2023 16:14	DGS	EPA 8260C
4-Chlorotoluene	<0.31	ug/L	0.31	1.1	1			10/12/2023 16:14	DGS	EPA 8260C
4-Methyl-2-pentanone	<3.7	ug/L	3.7	13	1			10/12/2023 16:14	DGS	EPA 8260C
Acetone	<4.1	ug/L	4.1	14	1	Y		10/12/2023 16:14	DGS	EPA 8260C
Benzene	<0.40	ug/L	0.40	1.6	1			10/12/2023 16:14	DGS	EPA 8260C
Bromobenzene	<0.33	ug/L	0.33	1.1	1			10/12/2023 16:14	DGS	EPA 8260C
Bromochloromethane	<0.26	ug/L	0.26	1.0	1			10/12/2023 16:14	DGS	EPA 8260C
Bromodichloromethane	<0.76	ug/L	0.76	2.6	1			10/12/2023 16:14	DGS	EPA 8260C
Bromoform	<0.50	ug/L	0.50	1.7	1			10/12/2023 16:14	DGS	EPA 8260C
Bromomethane	<0.72	ug/L	0.72	2.4	1			10/12/2023 16:14	DGS	EPA 8260C
Carbon disulfide	<0.83	ug/L	0.83	2.8	1			10/12/2023 16:14	DGS	EPA 8260C
Carbon tetrachloride	<0.37	ug/L	0.37	1.3	1			10/12/2023 16:14	DGS	EPA 8260C
Chlorobenzene	<0.37	ug/L	0.37	1.3	1			10/12/2023 16:14	DGS	EPA 8260C
Chloroethane	<1.1	ug/L	1.1	3.7	1			10/12/2023 16:14	DGS	EPA 8260C
Chloroform	<0.46	ug/L	0.46	1.6	1			10/12/2023 16:14	DGS	EPA 8260C
Chloromethane	<1.3	ug/L	1.3	4.4	1			10/12/2023 16:14	DGS	EPA 8260C
cis-1,2-Dichloroethene	<0.41	ug/L	0.41	1.4	1			10/12/2023 16:14	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB Sample#: 1382398 Sample Description: MW-2 Sampled: 10/10/2023 16:05

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
cis-1,3-Dichloropropene	<0.34	ug/L	0.34	1.2	1			10/12/2023 16:14	DGS	EPA 8260C
Dibromochloromethane	<0.36	ug/L	0.36	1.2	1			10/12/2023 16:14	DGS	EPA 8260C
Dibromomethane	<0.45	ug/L	0.45	1.5	1			10/12/2023 16:14	DGS	EPA 8260C
Dichlorodifluoromethane	<0.63	ug/L	0.63	2.1	1			10/12/2023 16:14	DGS	EPA 8260C
Diisopropyl ether	<0.26	ug/L	0.26	1.0	1			10/12/2023 16:14	DGS	EPA 8260C
Ethylbenzene	<0.42	ug/L	0.42	1.4	1			10/12/2023 16:14	DGS	EPA 8260C
Hexachlorobutadiene	<0.57	ug/L	0.57	1.9	1			10/12/2023 16:14	DGS	EPA 8260C
Isopropylbenzene	<0.39	ug/L	0.39	1.3	1			10/12/2023 16:14	DGS	EPA 8260C
m & p-Xylene	<0.74	ug/L	0.74	2.5	1			10/12/2023 16:14	DGS	EPA 8260C
Methyl tert-butyl ether	<0.28	ug/L	0.28	1.0	1			10/12/2023 16:14	DGS	EPA 8260C
Methylene chloride	<1.2	ug/L	1.2	4.0	1			10/12/2023 16:14	DGS	EPA 8260C
n-Butylbenzene	<0.34	ug/L	0.34	1.2	1			10/12/2023 16:14	DGS	EPA 8260C
n-Propylbenzene	<0.34	ug/L	0.34	1.2	1			10/12/2023 16:14	DGS	EPA 8260C
Naphthalene	<0.35	ug/L	0.35	1.2	1			10/12/2023 16:14	DGS	EPA 8260C
o-Xylene	<0.72	ug/L	0.72	2.4	1			10/12/2023 16:14	DGS	EPA 8260C
p-Isopropyltoluene	<0.29	ug/L	0.29	1.0	1			10/12/2023 16:14	DGS	EPA 8260C
sec-Butylbenzene	<0.33	ug/L	0.33	1.1	1			10/12/2023 16:14	DGS	EPA 8260C
Styrene	<0.33	ug/L	0.33	1.1	1			10/12/2023 16:14	DGS	EPA 8260C
tert-Butylbenzene	<0.27	ug/L	0.27	1.0	1			10/12/2023 16:14	DGS	EPA 8260C
Tetrachloroethene	<0.55	ug/L	0.55	1.9	1			10/12/2023 16:14	DGS	EPA 8260C
Tetrahydrofuran	<3.4	ug/L	3.4	12	1			10/12/2023 16:14	DGS	EPA 8260C
Toluene	<0.27	ug/L	0.27	1.0	1			10/12/2023 16:14	DGS	EPA 8260C
trans-1,2-Dichloroethene	<0.35	ug/L	0.35	1.2	1			10/12/2023 16:14	DGS	EPA 8260C
trans-1,3-Dichloropropene	<0.57	ug/L	0.57	2.0	1			10/12/2023 16:14	DGS	EPA 8260C
Trichloroethene	<0.39	ug/L	0.39	1.3	1			10/12/2023 16:14	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB Sample#: 1382398 Sample Description: MW-2 Sampled: 10/10/2023 16:05

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Trichlorofluoromethane	<0.41	ug/L	0.41	1.4	1			10/12/2023 16:14	DGS	EPA 8260C
Vinyl acetate	<6.4	ug/L	6.4	22	1			10/12/2023 16:14	DGS	EPA 8260C
Vinyl chloride	<0.15	ug/L	0.15	0.50	1			10/12/2023 16:14	DGS	EPA 8260C

CT LAB Sample#: 1382399 Sample Description: MW-3 Sampled: 10/10/2023 15:55

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.34	ug/L	0.34	1.2	1			10/12/2023 16:42	DGS	EPA 8260C
1,1,1-Trichloroethane	<0.38	ug/L	0.38	1.3	1			10/12/2023 16:42	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.36	ug/L	0.36	1.2	1			10/12/2023 16:42	DGS	EPA 8260C
1,1,2-Trichloroethane	<0.27	ug/L	0.27	1.0	1			10/12/2023 16:42	DGS	EPA 8260C
1,1-Dichloroethane	<0.28	ug/L	0.28	1.0	1			10/12/2023 16:42	DGS	EPA 8260C
1,1-Dichloroethene	<0.49	ug/L	0.49	1.7	1			10/12/2023 16:42	DGS	EPA 8260C
1,1-Dichloropropene	<0.41	ug/L	0.41	1.4	1			10/12/2023 16:42	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<0.43	ug/L	0.43	1.5	1			10/12/2023 16:42	DGS	EPA 8260C
1,2,3-Trichloropropane	<0.35	ug/L	0.35	1.2	1			10/12/2023 16:42	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<0.50	ug/L	0.50	1.7	1			10/12/2023 16:42	DGS	EPA 8260C
1,2,4-Trimethylbenzene	<0.34	ug/L	0.34	1.2	1			10/12/2023 16:42	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.49	ug/L	0.49	1.7	1	Z		10/12/2023 16:42	DGS	EPA 8260C
1,2-Dibromoethane	<0.33	ug/L	0.33	1.1	1			10/12/2023 16:42	DGS	EPA 8260C
1,2-Dichlorobenzene	<0.36	ug/L	0.36	1.2	1			10/12/2023 16:42	DGS	EPA 8260C
1,2-Dichloroethane	<0.69	ug/L	0.69	2.3	1			10/12/2023 16:42	DGS	EPA 8260C
1,2-Dichloropropane	<0.37	ug/L	0.37	1.3	1			10/12/2023 16:42	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB Sample#: 1382399 Sample Description: MW-3 Sampled: 10/10/2023 15:55

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3,5-Trimethylbenzene	<0.30	ug/L	0.30	1.0	1			10/12/2023 16:42	DGS	EPA 8260C
1,3-Dichlorobenzene	<0.30	ug/L	0.30	1.0	1			10/12/2023 16:42	DGS	EPA 8260C
1,3-Dichloropropane	<0.28	ug/L	0.28	1.0	1			10/12/2023 16:42	DGS	EPA 8260C
1,4-Dichlorobenzene	<0.33	ug/L	0.33	1.1	1			10/12/2023 16:42	DGS	EPA 8260C
2,2-Dichloropropane	<0.31	ug/L	0.31	1.1	1	Y		10/12/2023 16:42	DGS	EPA 8260C
2-Butanone	<2.9	ug/L	2.9	10	1	Y		10/12/2023 16:42	DGS	EPA 8260C
2-Chlorotoluene	<0.31	ug/L	0.31	1.1	1			10/12/2023 16:42	DGS	EPA 8260C
2-Hexanone	<3.3	ug/L	3.3	11	1			10/12/2023 16:42	DGS	EPA 8260C
4-Chlorotoluene	<0.31	ug/L	0.31	1.1	1			10/12/2023 16:42	DGS	EPA 8260C
4-Methyl-2-pentanone	<3.7	ug/L	3.7	13	1			10/12/2023 16:42	DGS	EPA 8260C
Acetone	<4.1	ug/L	4.1	14	1	Y		10/12/2023 16:42	DGS	EPA 8260C
Benzene	<0.40	ug/L	0.40	1.6	1			10/12/2023 16:42	DGS	EPA 8260C
Bromobenzene	<0.33	ug/L	0.33	1.1	1			10/12/2023 16:42	DGS	EPA 8260C
Bromochloromethane	<0.26	ug/L	0.26	1.0	1			10/12/2023 16:42	DGS	EPA 8260C
Bromodichloromethane	<0.76	ug/L	0.76	2.6	1			10/12/2023 16:42	DGS	EPA 8260C
Bromoform	<0.50	ug/L	0.50	1.7	1			10/12/2023 16:42	DGS	EPA 8260C
Bromomethane	<0.72	ug/L	0.72	2.4	1			10/12/2023 16:42	DGS	EPA 8260C
Carbon disulfide	<0.83	ug/L	0.83	2.8	1			10/12/2023 16:42	DGS	EPA 8260C
Carbon tetrachloride	<0.37	ug/L	0.37	1.3	1			10/12/2023 16:42	DGS	EPA 8260C
Chlorobenzene	<0.37	ug/L	0.37	1.3	1			10/12/2023 16:42	DGS	EPA 8260C
Chloroethane	<1.1	ug/L	1.1	3.7	1			10/12/2023 16:42	DGS	EPA 8260C
Chloroform	<0.46	ug/L	0.46	1.6	1			10/12/2023 16:42	DGS	EPA 8260C
Chloromethane	<1.3	ug/L	1.3	4.4	1			10/12/2023 16:42	DGS	EPA 8260C
cis-1,2-Dichloroethene	<0.41	ug/L	0.41	1.4	1			10/12/2023 16:42	DGS	EPA 8260C
cis-1,3-Dichloropropene	<0.34	ug/L	0.34	1.2	1			10/12/2023 16:42	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB Sample#: 1382399 Sample Description: MW-3 Sampled: 10/10/2023 15:55

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromochloromethane	<0.36	ug/L	0.36	1.2	1			10/12/2023 16:42	DGS	EPA 8260C
Dibromomethane	<0.45	ug/L	0.45	1.5	1			10/12/2023 16:42	DGS	EPA 8260C
Dichlorodifluoromethane	<0.63	ug/L	0.63	2.1	1			10/12/2023 16:42	DGS	EPA 8260C
Diisopropyl ether	<0.26	ug/L	0.26	1.0	1			10/12/2023 16:42	DGS	EPA 8260C
Ethylbenzene	<0.42	ug/L	0.42	1.4	1			10/12/2023 16:42	DGS	EPA 8260C
Hexachlorobutadiene	<0.57	ug/L	0.57	1.9	1			10/12/2023 16:42	DGS	EPA 8260C
Isopropylbenzene	<0.39	ug/L	0.39	1.3	1			10/12/2023 16:42	DGS	EPA 8260C
m & p-Xylene	<0.74	ug/L	0.74	2.5	1			10/12/2023 16:42	DGS	EPA 8260C
Methyl tert-butyl ether	<0.28	ug/L	0.28	1.0	1			10/12/2023 16:42	DGS	EPA 8260C
Methylene chloride	<1.2	ug/L	1.2	4.0	1			10/12/2023 16:42	DGS	EPA 8260C
n-Butylbenzene	<0.34	ug/L	0.34	1.2	1			10/12/2023 16:42	DGS	EPA 8260C
n-Propylbenzene	<0.34	ug/L	0.34	1.2	1			10/12/2023 16:42	DGS	EPA 8260C
Naphthalene	<0.35	ug/L	0.35	1.2	1			10/12/2023 16:42	DGS	EPA 8260C
o-Xylene	<0.72	ug/L	0.72	2.4	1			10/12/2023 16:42	DGS	EPA 8260C
p-Isopropyltoluene	<0.29	ug/L	0.29	1.0	1			10/12/2023 16:42	DGS	EPA 8260C
sec-Butylbenzene	<0.33	ug/L	0.33	1.1	1			10/12/2023 16:42	DGS	EPA 8260C
Styrene	<0.33	ug/L	0.33	1.1	1			10/12/2023 16:42	DGS	EPA 8260C
tert-Butylbenzene	<0.27	ug/L	0.27	1.0	1			10/12/2023 16:42	DGS	EPA 8260C
Tetrachloroethene	**4.1**	ug/L	0.55	1.9	1			10/12/2023 16:42	DGS	EPA 8260C
Tetrahydrofuran	<3.4	ug/L	3.4	12	1			10/12/2023 16:42	DGS	EPA 8260C
Toluene	<0.27	ug/L	0.27	1.0	1			10/12/2023 16:42	DGS	EPA 8260C
trans-1,2-Dichloroethene	<0.35	ug/L	0.35	1.2	1			10/12/2023 16:42	DGS	EPA 8260C
trans-1,3-Dichloropropene	<0.57	ug/L	0.57	2.0	1			10/12/2023 16:42	DGS	EPA 8260C
Trichloroethene	<0.39	ug/L	0.39	1.3	1			10/12/2023 16:42	DGS	EPA 8260C
Trichlorofluoromethane	<0.41	ug/L	0.41	1.4	1			10/12/2023 16:42	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB Sample#: 1382399 Sample Description: MW-3 Sampled: 10/10/2023 15:55

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Vinyl acetate	<6.4	ug/L	6.4	22	1			10/12/2023 16:42	DGS	EPA 8260C
Vinyl chloride	<0.15	ug/L	0.15	0.50	1			10/12/2023 16:42	DGS	EPA 8260C

CT LAB Sample#: 1382400 Sample Description: MW-4 Sampled: 10/10/2023 15:40

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.34	ug/L	0.34	1.2	1			10/12/2023 17:11	DGS	EPA 8260C
1,1,1-Trichloroethane	<0.38	ug/L	0.38	1.3	1			10/12/2023 17:11	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.36	ug/L	0.36	1.2	1			10/12/2023 17:11	DGS	EPA 8260C
1,1,2-Trichloroethane	<0.27	ug/L	0.27	1.0	1			10/12/2023 17:11	DGS	EPA 8260C
1,1-Dichloroethane	<0.28	ug/L	0.28	1.0	1			10/12/2023 17:11	DGS	EPA 8260C
1,1-Dichloroethene	<0.49	ug/L	0.49	1.7	1			10/12/2023 17:11	DGS	EPA 8260C
1,1-Dichloropropene	<0.41	ug/L	0.41	1.4	1			10/12/2023 17:11	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<0.43	ug/L	0.43	1.5	1			10/12/2023 17:11	DGS	EPA 8260C
1,2,3-Trichloropropane	<0.35	ug/L	0.35	1.2	1			10/12/2023 17:11	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<0.50	ug/L	0.50	1.7	1			10/12/2023 17:11	DGS	EPA 8260C
1,2,4-Trimethylbenzene	<0.34	ug/L	0.34	1.2	1			10/12/2023 17:11	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.49	ug/L	0.49	1.7	1	Z		10/12/2023 17:11	DGS	EPA 8260C
1,2-Dibromoethane	<0.33	ug/L	0.33	1.1	1			10/12/2023 17:11	DGS	EPA 8260C
1,2-Dichlorobenzene	<0.36	ug/L	0.36	1.2	1			10/12/2023 17:11	DGS	EPA 8260C
1,2-Dichloroethane	<0.69	ug/L	0.69	2.3	1			10/12/2023 17:11	DGS	EPA 8260C
1,2-Dichloropropane	<0.37	ug/L	0.37	1.3	1			10/12/2023 17:11	DGS	EPA 8260C
1,3,5-Trimethylbenzene	<0.30	ug/L	0.30	1.0	1			10/12/2023 17:11	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB Sample#: 1382400 Sample Description: MW-4 Sampled: 10/10/2023 15:40

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichlorobenzene	<0.30	ug/L	0.30	1.0	1			10/12/2023 17:11	DGS	EPA 8260C
1,3-Dichloropropane	<0.28	ug/L	0.28	1.0	1			10/12/2023 17:11	DGS	EPA 8260C
1,4-Dichlorobenzene	<0.33	ug/L	0.33	1.1	1			10/12/2023 17:11	DGS	EPA 8260C
2,2-Dichloropropane	<0.31	ug/L	0.31	1.1	1	Y		10/12/2023 17:11	DGS	EPA 8260C
2-Butanone	<2.9	ug/L	2.9	10	1	Y		10/12/2023 17:11	DGS	EPA 8260C
2-Chlorotoluene	<0.31	ug/L	0.31	1.1	1			10/12/2023 17:11	DGS	EPA 8260C
2-Hexanone	<3.3	ug/L	3.3	11	1			10/12/2023 17:11	DGS	EPA 8260C
4-Chlorotoluene	<0.31	ug/L	0.31	1.1	1			10/12/2023 17:11	DGS	EPA 8260C
4-Methyl-2-pentanone	<3.7	ug/L	3.7	13	1			10/12/2023 17:11	DGS	EPA 8260C
Acetone	<4.1	ug/L	4.1	14	1	Y		10/12/2023 17:11	DGS	EPA 8260C
Benzene	<0.40	ug/L	0.40	1.6	1			10/12/2023 17:11	DGS	EPA 8260C
Bromobenzene	<0.33	ug/L	0.33	1.1	1			10/12/2023 17:11	DGS	EPA 8260C
Bromochloromethane	<0.26	ug/L	0.26	1.0	1			10/12/2023 17:11	DGS	EPA 8260C
Bromodichloromethane	<0.76	ug/L	0.76	2.6	1			10/12/2023 17:11	DGS	EPA 8260C
Bromoform	<0.50	ug/L	0.50	1.7	1			10/12/2023 17:11	DGS	EPA 8260C
Bromomethane	<0.72	ug/L	0.72	2.4	1			10/12/2023 17:11	DGS	EPA 8260C
Carbon disulfide	<0.83	ug/L	0.83	2.8	1			10/12/2023 17:11	DGS	EPA 8260C
Carbon tetrachloride	<0.37	ug/L	0.37	1.3	1			10/12/2023 17:11	DGS	EPA 8260C
Chlorobenzene	<0.37	ug/L	0.37	1.3	1			10/12/2023 17:11	DGS	EPA 8260C
Chloroethane	<1.1	ug/L	1.1	3.7	1			10/12/2023 17:11	DGS	EPA 8260C
Chloroform	<0.46	ug/L	0.46	1.6	1			10/12/2023 17:11	DGS	EPA 8260C
Chloromethane	<1.3	ug/L	1.3	4.4	1			10/12/2023 17:11	DGS	EPA 8260C
cis-1,2-Dichloroethene	<0.41	ug/L	0.41	1.4	1			10/12/2023 17:11	DGS	EPA 8260C
cis-1,3-Dichloropropene	<0.34	ug/L	0.34	1.2	1			10/12/2023 17:11	DGS	EPA 8260C
Dibromochloromethane	<0.36	ug/L	0.36	1.2	1			10/12/2023 17:11	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB Sample#: 1382400 Sample Description: MW-4 Sampled: 10/10/2023 15:40

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Dibromomethane	<0.45	ug/L	0.45	1.5	1			10/12/2023 17:11	DGS	EPA 8260C
Dichlorodifluoromethane	<0.63	ug/L	0.63	2.1	1			10/12/2023 17:11	DGS	EPA 8260C
Diisopropyl ether	<0.26	ug/L	0.26	1.0	1			10/12/2023 17:11	DGS	EPA 8260C
Ethylbenzene	<0.42	ug/L	0.42	1.4	1			10/12/2023 17:11	DGS	EPA 8260C
Hexachlorobutadiene	<0.57	ug/L	0.57	1.9	1			10/12/2023 17:11	DGS	EPA 8260C
Isopropylbenzene	<0.39	ug/L	0.39	1.3	1			10/12/2023 17:11	DGS	EPA 8260C
m & p-Xylene	<0.74	ug/L	0.74	2.5	1			10/12/2023 17:11	DGS	EPA 8260C
Methyl tert-butyl ether	<0.28	ug/L	0.28	1.0	1			10/12/2023 17:11	DGS	EPA 8260C
Methylene chloride	<1.2	ug/L	1.2	4.0	1			10/12/2023 17:11	DGS	EPA 8260C
n-Butylbenzene	<0.34	ug/L	0.34	1.2	1			10/12/2023 17:11	DGS	EPA 8260C
n-Propylbenzene	<0.34	ug/L	0.34	1.2	1			10/12/2023 17:11	DGS	EPA 8260C
Naphthalene	<0.35	ug/L	0.35	1.2	1			10/12/2023 17:11	DGS	EPA 8260C
o-Xylene	<0.72	ug/L	0.72	2.4	1			10/12/2023 17:11	DGS	EPA 8260C
p-Isopropyltoluene	<0.29	ug/L	0.29	1.0	1			10/12/2023 17:11	DGS	EPA 8260C
sec-Butylbenzene	<0.33	ug/L	0.33	1.1	1			10/12/2023 17:11	DGS	EPA 8260C
Styrene	<0.33	ug/L	0.33	1.1	1			10/12/2023 17:11	DGS	EPA 8260C
tert-Butylbenzene	<0.27	ug/L	0.27	1.0	1			10/12/2023 17:11	DGS	EPA 8260C
Tetrachloroethene	<0.55	ug/L	0.55	1.9	1			10/12/2023 17:11	DGS	EPA 8260C
Tetrahydrofuran	<3.4	ug/L	3.4	12	1			10/12/2023 17:11	DGS	EPA 8260C
Toluene	<0.27	ug/L	0.27	1.0	1			10/12/2023 17:11	DGS	EPA 8260C
trans-1,2-Dichloroethene	<0.35	ug/L	0.35	1.2	1			10/12/2023 17:11	DGS	EPA 8260C
trans-1,3-Dichloropropene	<0.57	ug/L	0.57	2.0	1			10/12/2023 17:11	DGS	EPA 8260C
Trichloroethene	<0.39	ug/L	0.39	1.3	1			10/12/2023 17:11	DGS	EPA 8260C
Trichlorofluoromethane	<0.41	ug/L	0.41	1.4	1			10/12/2023 17:11	DGS	EPA 8260C
Vinyl acetate	<6.4	ug/L	6.4	22	1			10/12/2023 17:11	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB Sample#: 1382400 Sample Description: MW-4 Sampled: 10/10/2023 15:40

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Vinyl chloride	<0.15	ug/L	0.15	0.50	1			10/12/2023 17:11	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

Notes regarding entire Chain of Custody:

Notes: * Indicates a value in between the LOD (limit of detection) and the LOQ (limit of quantitation). All LOD/LOQs are adjusted to reflect dilution and also any differences in the sample weight / volume as compared to standard amounts.

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Jodi L. Serstad
Project Manager
608-356-2760

QC Qualifiers

Code	Description
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	Incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 289
Louisiana NELAP (primary) ID# 115843
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01

Rev. 9/2020

GROUNDWATER CHAIN OF CUSTODY

Page 1 of 1

Company: Clearstart Water
Project Contact: Tom Fitzwilliams
Telephone: 608-963-7375
Project Name: Murphy
Project #:
Location: Lodi, WI
Sampled By: Tom Fitzwilliams

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 181281
Company: CLEARSTART WATER
Project: MURPHY
Logged By: erc PM: JLS

CRA SDWA NPDES
te Other _____

Report To:
EMAIL: tom@clearstartwater.com
Company: Clearstart Water
Address:

Invoice To:*
EMAIL:
Company: Same
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW - groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed:
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample ID Description	Filtered? Y/N	Lab Filtration	pH	Total Diss. Solids	Chloride	Nitrate+Nitrogen	TKN	Total Organic Nitrogen	Ammonia N	Alkalinity	VOC 8260				Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
~~10-10-23~~		GW	G	~~MW-1~~	N										X				3		
10-10-23	1605	GW	G	MW-2	N										X				3		13827998
10-10-23	1555	GW	G	MW-3	N										X				3		399
10-10-23	1540	GW	G	MW-4	N										X				3		400

Relinquished By:	Date/Time	Received By:	Date/Time
	10-11-23 830		10/11/23 830
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			10/11/23 834

Lab Use Only
Ice Present Yes No
Obs. Temp 4 IR Gun 31
Act. Temp ____ Cooler GFC

CT Laboratories Terms and Conditions

Where a purchaser (Client) places an order for laboratory, consulting or sampling services from CT Laboratories (CTL), CTL shall provide the ordered services pursuant to these Terms and Conditions, and the related Quotation or as agreed in a negotiated contract. In the absence of a written agreement to the contrary, the Order constitutes an acceptance by the Client of CTL's offer to do business under these Terms and Conditions, and an agreement to be bound by these Terms and Conditions. No contrary or additional terms and conditions expressed in a Client's document shall be deemed to become a part of the contract created upon acceptance of these Terms and Conditions unless accepted by CTL in advance of the start of the project and in writing.

1. ORDERS AND RECEIPT OF SAMPLES (see the Acceptance Policy)

1.1 The Client may place the Order (i.e. specify a Scope of Work) either by submitting a purchase order to CTL in writing, by telephone (confirmed in writing) or by negotiated contract. Whichever option the Client selects for placing the Order, the Order shall not be valid unless it contains sufficient information to enable CTL to carry out the Client's requirements. It is the policy of CTL that samples not meeting the acceptance criteria, outlined in the NELAC standards and Section 5.8.3.2 of the DOD QSM, will not be accepted by the laboratory or will be qualified on the final report. All samples submitted to the laboratory must (a) be accompanied by proper, full and complete documentation, including sample identification, location, date and time of collection, the collector's name, type of preservation (if any), type of sample, any special comments concerning the sample and any additional pertinent fields on the chain-of-custody. In the absence of any of the required information, the laboratory will attempt to contact the client to obtain the information. If unable to obtain the necessary information, the final report will be qualified. (b) samples must be labeled appropriately with a unique sample identification written with indelible ink on water resistant labels. If the laboratory cannot determine the identity of a sample, it may be rejected and the client will be contacted for further instructions or resampling. (c) samples must be in an appropriate sample container. If the container is inappropriate, the client will be contacted for further instructions or resampling. If analysis is possible, the final report will be qualified. CTL can provide a sampling guide containing approved containers and preservations for analytical methods requested. (d) adhere to method specified holding times. If samples are received with less than ½ the holding time remaining for the requested test, CTL will make its best effort to analyze the samples and notify the client. If holding times are exceeded, the final report will be qualified. (e) contain adequate sample volume to perform the necessary testing. If sufficient volume is not present, the sample may be rejected and the client will be contacted for further instructions or resampling. If samples show signs of damage, contamination or inadequate preservation, the client will be notified. If analysis can be performed, the final report will be qualified. If not, the samples will be recycled and the client notified for further instructions or resampling. It is the Client's responsibility to provide Standard Operating Procedures, sample containers and provide the proper amount of sample for analysis. Custody seals, if used, must be supplied with complete written instructions on the handling of suspected presence of any hazardous substances as defined by applicable federal or state law. We do not accept any samples which were not accompanied by the required paperwork. Causes, interruptions in the lab's ability to process work due to contamination of instruments or work areas, the Client will be responsible for the costs of clean up and recovery.

1.3 Prior to Sample Acceptance, the entire risk of loss or damage to samples remains with the Client. In no event will CTL have any responsibility or liability for the action or inaction of any carrier shipping or delivering any sample to or from CTL's premises. Client is responsible to assure that any sample containing any hazardous substance which is to be delivered to CTL's premises will be packaged, labeled, transported and delivered properly and in accordance with applicable laws.

1.4 Clients using CTL's shipping account(s) do so at their own risk and must purchase separate insurance if they do not wish to assume risk of loss. CTL will not assume any risk whatsoever for any samples outside of CTL's control and not successfully delivered to the laboratory within specified hold times.

1.5 CTL will not accept liability for any sample(s), except sample(s) damaged or broken by log-in staff prior to successful log-in of the sample(s) into the CTL- LIMS system. This includes, but may not be limited to: complete, valid COC documentation, all sample receiving issues being resolved from a delay caused by the Client in CTL's ability to log-in samples, including missed turnaround and hold times, delay in processing and, ultimately, additional charges to the Client.

1.6 CTL will only reject samples per directions from the Client. CTL's sole liability is to inform the Client of any sample receipt issues, and may provide an indication how proceeding with the analysis may affect results and final acceptance by the regulating agency. Ultimately, suitability for use is between the Client and the regulating agency(s).

1.7 Signing of this COC by the Client or Client's representative, or directions to CTL via email or Fax constitutes acceptance of these Terms and Conditions and guarantees payment by the Client to CTL.

2. PAYMENT TERMS

2.1 Services performed by CTL will be in accordance with prices quoted and later confirmed in writing or as stated in the Price Schedule. Invoices may be submitted to Client upon completion of any sample delivery group. Payment in advance is required for all Clients except those whose credit has been established with CTL. For Clients with approved credit, payment terms are net 30 days from the date of invoice by CTL. All overdue payments are subject to an additional interest and service charge of one and one-half percent (1.5%) or the maximum rate permissible by law, per month or portion thereof from the due date until the date of payment. All fees are charged or billed directly to the Client. The billing of a third party will not be accepted without a statement, signed by the third party that acknowledges and accepts payment responsibility. CTL may suspend work and withhold delivery of data under this order at any time in the event Client fails to make timely payment of its invoices. Client shall be responsible for all costs and expenses of collection including reasonable attorney's fees. CTL reserves the right to refuse to proceed with work at any time based upon an unfavorable Client credit report.

3. CHANGE ORDERS, TERMINATION

3.1 Changes to the Scope of Work, price, or result delivery date may be initiated by CTL after Sample Acceptance due to any condition which conflicts with analytical, QA or other protocols warranted in these Terms and Conditions. CTL will not proceed with such changes until an agreement with the Client is reached on the amount of any cost, schedule change or technical change to the Scope of Work, and such agreement is documented in writing.

3.2 Changes to the Scope of Work, including but not limited to increasing or decreasing the work, changing test and analysis specification or acceleration in the performance of the work may be initiated by the Client after sample acceptance. Such a change will be documented in writing and may result in a change in cost and turnaround time commitment. CTL's acceptance of such changes is contingent upon technical feasibility and operational capacity.

3.3 Suspension or termination of all or any part of the work may be initiated by the Client. CTL will be compensated consistent with Section 2 of these Terms and Conditions. CTL will complete all work in progress and be paid in full for all work completed.

4. WARRANTIES AND LIABILITY

4.1 Where applicable, CTL will use analytical methodologies which are in substantial conformity with published test methods. CTL has implemented these methods in its Laboratory Quality Manuals and referenced Standard Operating Procedures and where the nature or composition of the sample requires it, CTL reserves the right to deviate from these methodologies as necessary or appropriate, based on the reasonable judgment of CTL, which deviations, if any, will be made on a basis consistent with recognized standards of the industry and/or CTL's Laboratory Quality Manuals. Client may request that CTL perform according to a mutually agreed Quality Assurance Project Plan (QAPP). In the event that samples arrive prior to agreement on a QAPP, CTL will proceed with analyses under its standard Quality Manuals then in effect, and CTL will not be responsible for any resampling or other charges if work must be repeated to comply with a subsequently finalized QAPP.

4.2 CTL shall start preparation and/or analysis within holding times provided that Sample Acceptance occurs within 48 hours of sampling or 1/2 of the holding time for the test, whichever is less. Samples received that do not meet this provision will be charged as expedited samples and the appropriate rate will be added accordingly. Where resolution of inconsistencies leading to Sample Acceptance does not occur within this period, CTL will use its best efforts to meet holding times and will proceed with the work provided that, in CTL's judgment, the chain-of-custody or definition of the Scope of Work provide sufficient guidance. Reanalysis of samples to comply with CTL's Quality Manuals will be deemed to have met holding times provided the initial analysis was performed within the applicable holding time. Where reanalysis demonstrates that sample matrix interference is the cause of failure to meet any Quality Manual requirements, the warranty will be deemed to have been met.

4.3 CTL warrants that it possesses and maintains all licenses and certifications which are required to perform services under these Terms and Conditions provided that such requirements are specified in writing to CTL prior to Sample Acceptance. CTL will notify the Client in writing of any decertification or revocation of any license, or notice of either, which affects work in progress.

4.4 The warranty obligations set forth in Sections 4.1, 4.2 and 4.3 are the sole and exclusive warranties given by CTL in connection with any services performed by CTL or any Results generated from such services, and CTL gives and makes NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. No representative of CTL is authorized to give or make any other representation or warranty or modify this warranty in any way.

4.5 Client's sole and exclusive remedy for the breach of warranty in connection with any services performed by CTL, will be limited to repeating any services performed, contingent on the Client's providing, at the request of CTL and at the Client's expense, additional sample(s) if necessary. Any reanalysis requested by the Client generating Results consistent with the original Results will be at the Client's expense. If resampling is necessary, CTL's liability for resampling costs will be limited to actual cost or one hundred or one hundred fifty dollars ($150) per sample, whichever is less.

4.6 CTL's liability for any and all causes of action arising hereunder, whether based in contract, tort, warranty, negligence or otherwise, shall be limited to the lesser amount of compensation for the services performed or $100,000. All claims, including those for negligence, shall be deemed waived unless suit thereon is filed within one year after CTL's completion of the services. Under no circumstances, whether arising in contract, tort (including negligence) or otherwise, shall CTL be responsible for loss of use, loss of profits, or for any special, indirect, incidental or consequential damages occasioned by the services performed or by application or use of the reports prepared.

4.7 In no event shall CTL have any responsibility or liability to the Client for any failure or delay in performance by CTL which results, directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of CTL. Such causes and circumstances shall include, but not be limited to: acts of God, acts of Client, acts or orders of any governmental authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, equipment breakdown, matrix interference or unknown highly contaminated samples that impact instrument operation, unavailability of supplies from usual suppliers, difficulties or delays in transportation, mail or delivery services, or any other cause beyond CTL's reasonable control.

5. RESULTS, WORK PRODUCT

5.1 Data or information provided to Client generated by CTL in performing services under these Terms and Conditions shall only become the property of the Client upon receipt in full by CTL of payment for the whole Order. Ownership of any analytical method, QA/QC protocols, software programs or equipment developed by CTL for performance of work will remain obtained by CTL and CTL will not disclose such [illegible] to any third party.

5.2 Data and sample materials provided by Client or at Client's request, and the result obtained by CTL shall be held in confidence (unless such information is generally available to the public or is in the public domain or Client has failed to pay CTL for all services rendered or is otherwise in breach of these Terms and Conditions), subject to any disclosure required by law or legal process.

5.3 Should the Results delivered by CTL be used by the Client or Client's client, even though subsequently determined not to meet the warranties described in these Terms and Conditions, then the compensation will be adjusted based upon mutual agreement. In no case shall the Client unreasonably withhold CTL's right to independently defend its data.

5.4 CTL reserves the right to subcontract services ordered by the Client to another laboratory or laboratories, if, in CTL's sole judgment, it is reasonably necessary, appropriate or advisable to do so, and with the Client's permission. CTL will in no way be liable for any subcontracted services and all applicable warranties, guarantees and insurance are those of the subcontracted laboratory.

5.5 CTL shall dispose of the Client's samples and extracts 30 days after the analytical report is issued, unless instructed to store them for an alternate period of time or to return such samples to the Client, in a manner consistent with U.S. Environmental Protection Agency regulations or other applicable Federal, state or local requirements. Additional charges will apply for samples or extracts stored longer than 30 days at the Client's request. Any samples for projects that are canceled or not accepted, or for which return was requested, will be returned to the Client at Client expense. CTL reserves the right to return to the Client any sample or unused portion of a sample that is not within CTL's permitted capability or the capabilities of CTL's designated waste disposal vendor(s), or will make arrangements to dispose of these samples at Client direction and expense.

5.6 Unless a different time period is [illegible] to any of these Terms and Conditions, CTL agrees to retain all records for five (5) years.

5.7 In the event that CTL is required to respond to legal process related to services for the Client, Client agrees to reimburse CTL for hourly charges for personnel involved in the response and attorney fees reasonably incurred in obtaining advice concerning the response, preparation to testify, and appearances related to the legal process, travel and all reasonable expenses associated with the litigation.

6. INSURANCE

6.1 CTL shall maintain in force during the performance of services under these Terms and Conditions, Workers' Compensation and Employer's Liability insurance in accordance with the laws of the states having jurisdiction over CTL's employees who are engaged in the performance of the work. CTL shall also maintain during such period, Comprehensive General and Contractual Liability (limit of $2,000,000 per occurrence/ aggregate), Comprehensive Automobile Liability, owned and hired, ($1,000,000 combined single limit), and Professional/Pollution Liability Insurance (limit of $5,000,000 per occurrence/aggregate). Any Client required changes to these limits or conditions will result in a change in cost to the Client.

7. AUDIT

7.1 Upon prior notice to CTL, the Client may audit and inspect CTL records and accounts covering reimbursable costs related to work done for the Client, for a period of one (1) year after completion of the work. The purpose of any such audit shall be only for verification of such costs, and CTL shall not be required to provide access to cost records where prices are expressed as fixed fees or published unit prices.