April 23, 2025

Brad Davison
Environmental Specialist
IDNR – Land Quality Bureau
6200 Park Avenue Suite 200
Des Moines, IA 50321

RE: BIENNIAL INSPECTION REPORT – 2025
CHICKASAW COUNTY SANITARY LANDFILL (CLOSED)
HLW PN 6054-23A.750

Dear Mr. Davison,

In accordance with Item 7.e of the Environmental Covenant between IDNR and Chickasaw County, Iowa, a biennial inspection of the Chickasaw County Sanitary Landfill was personally conducted the afternoon of April 9, 2025. I was accompanied on the inspection by Chad Humpal, Director, Chickasaw County Conservation. Conditions at the time of the inspection were partly cloudy with light winds and temperatures in the 50's.

Status of the Permit

The Environmental Covenant was recorded with the Chickasaw County Recorder's Office as Instrument #2024-1306 on August 13, 2024 (Doc #110832). As a result, IDNR SDP Permit Number 19-SDP-01-72C was rescinded in the IDNR letter dated September 16, 2024 (Doc #110876). This letter also served as "notice of termination of the regulated post-closure care period for the Chickasaw County Sanitary Landfill".

Environmental Covenant, Item 7 – Activity and Use Limitations and Terms

General Restrictions

a. No excavations greater than 2' have been completed on the property.

b. No waste has been excavated, disrupted, or removed from the closed landfill site.

c. No drinking water wells have been constructed within the boundaries of the property.

d. No residences have been constructed with the boundaries of the property.

e. This report serves as the initial biennial inspection.

Specific Restrictions

f. *Restrictions and use limitations and terms due to continued management of landfill gas:*

1) No enclosed structures have been placed or constructed on the landfill cap.

2) No controlled burns have been conducted on the property.

g. Restrictions and use limitations and terms due to continued management of leachate:

1) The leachate control system is being operated and maintained. Leachate collected from the leachate control system is disposed of at the City of Fredericksburg Publicly Owned Treatment Works (POTW). Additional discussion on the leachate control system is contained later in this report.

h. Restrictions and use limitations and terms related to site access:

1) The landfill entrance is secured by a locked gate. The fencing near the front entrance gate is being maintained.

i. Restrictions and use limitations and terms related to land use:

1) The integrity of the landfill cap is being maintained. Additional discussion on the landfill cap is contained in the text below.

Landfill Cap Integrity

The landfill vegetation is in excellent condition. No bare spots of any consequence are noted at this time. Some tree growth was noted on the cap during the inspection. Mr. Humpal reported that trees are spot removed and treated as needed.

The seep areas (3) repaired in 2023 were reviewed. The repairs are intact and the rock appears to have worked well to date to contain seepage and limit wildlife damage to the repaired areas.

There was one area of ponded water noted in a rut created when the monitoring wells were abandoned. The approximate location of the rut is included on the attached figure.

Leachate Control System

Leachate is hauled to the City of Fredericksburg POTW for treatment and disposal. One load of leachate with an approximate capacity of 2,100 gallons was hauled per month in 2023 and 2024 to the City of Fredericksburg (25,200 gallons per year). Leachate testing results for 2023 and 2024 are included in Attachment A.

Leachate piezometers were installed in January, 2025 to measure leachate levels at five (5) locations at the landfill. The locations of the piezometers are shown on the

attached figure. Monthly (at a minimum) leachate level measurements began in April, 2025. This data is being collected with the goal of having sufficient data to determine if leachate hauling can stop in the future.

Additional Comments

All monitoring wells on site have been properly abandoned by a Certified Well Contractor. The following were abandoned on January 16, 2025, February 6, 2025, and February 7, 2025:

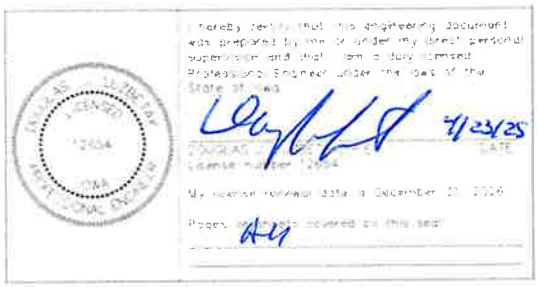
> MW-1, MW-2, MW-3, MW-4, PZ-2A, PZ-2B, PZ-3A, PZ-3B, PZ-3C, PZ-4A, PZ-4B, PZ-4C, PZ-5A, PZ-5B, PZ-5C, PZ-6, PZ-7, PZ-9A, PZ-9B, PZ-9C, PZ-10, MW-11, MW-12, MW-13, MW-14, MW-15, AND MW-16

Abandonment documentation was submitted to IDNR on March 25, 2025 (Doc #112592).

This report is based on observations made at the site at the time of the inspection and the information sources referenced in the report. This report does not reflect typical variations experienced at the site throughout the year or variations in conditions that may be observed at the site at other times.

Recommendations

1. Fill in rut caused during monitoring well removal.
2. Remove trees from cap.
3. Continue collection and disposal of leachate as per the Environmental Covenant.
4. Continue to monitor vegetation and erosion and repair as necessary.
5. Continue to monitor diversion and drainage systems and repair as necessary.



cc: Chad Humpal, Director, Chickasaw County Conservation (electronic copy)

PROPERTY BOUNDARY FENCE

CELL BOUNDARY (PLAN)

WASTE BOUNDARY (FIELD DETERMINED BY OTHERS)

LEACHATE COLLECTION PIPE

LEACHATE PIEZOMETER

N

SCALE

0 100 200

AERIAL DATED OCTOBER 10, 2023

AERIAL PROVIDED BY THE IOWA STATE UNIVERSITY GEOGRAPHIC INFORMATION SYSTEMS SUPPORT AND RESEARCH FACILITY IN COOPERATION WITH THE IOWA DEPARTMENT OF NATURAL RESOURCES, THE USDA NATURAL RESOURCES CONSERVATION SERVICES, AND THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

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Story City, Iowa 50248
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FAX: (515) 733-4146

2025 BIENNIAL INSPECTION

CHICKASAW COUNTY SANITARY LANDFILL
IONIA, IOWA

FIGURE: 1

REVISION	NO.	DATE
DRAWN JGH	PROJECT NO. 6054-25A	DATE 4/10/25

Attachment A

Leachate Testing Results

2023

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ray Armbrecht
City of Fredericksburg
151 West Main St. PO BOX 318
Fredericksburg, Iowa 50630

Generated 2/16/2023 8:33:23 AM

JOB DESCRIPTION

Wastewater

JOB NUMBER

310-249055-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

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Authorized for release by
Matthew Hummel, Project Manager I
Matthew.Hummel@et.eurofinsus.com
(319)595-2010

Case Narrative

Client: City of Fredericksburg
Project/Site: Wastewater

Job ID: 310-249055-1

Job ID: 310-249055-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-249055-1

Comments
No additional comments.

Receipt
The sample was received on 2/2/2023 2:40 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 8.3° C.

Receipt Exceptions
The following sample was received at the laboratory outside the required temperature criteria: Landfill Leachate (310-249055-1). This does not meet regulatory requirements.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method 200.8: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: Landfill Leachate (310-249055-1). The sample(s) was preserved to the appropriate pH in the laboratory.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 310-378384.The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 310-378400.The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: City of Fredericksburg
Project/Site: Wastewater

Job ID: 310-249055-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-249055-1	Landfill Leachate	Water	02/01/23 11:00	02/02/23 14:40

Client: City of Fredericksburg
Project/Site: Wastewater

Job ID: 310-249055-1

Client Sample ID: Landfill Leachate
Date Collected: 02/01/23 11:00
Date Received: 02/02/23 14:40

Lab Sample ID: 310-249055-1
Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
1,1,1-Trichloroethane	<1.00		1.00		ug/L		02/03/23 15:19	1	WSE8
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L		02/03/23 15:19	1	WSE8
1,1,2-Trichloroethane	<1.00		1.00		ug/L		02/03/23 15:19	1	WSE8
1,1-Dichloroethane	<1.00		1.00		ug/L		02/03/23 15:19	1	WSE8
1,1-Dichloroethene	<2.00		2.00		ug/L		02/03/23 15:19	1	WSE8
1,2-Dichloroethane	<1.00		1.00		ug/L		02/03/23 15:19	1	WSE8
1,2-Dichloroethene, Total	<1.00		1.00		ug/L		02/03/23 15:19	1	WSE8
1,2-Dichloropropane	<1.00		1.00		ug/L		02/03/23 15:19	1	WSE8
1,3-Dichloropropene, Total	<5.00		5.00		ug/L		02/03/23 15:19	1	WSE8
2-Chloroethyl vinyl ether	<2.00		2.00		ug/L		02/03/23 15:19	1	WSE8
Benzene	1.38		0.500		ug/L		02/06/23 13:06	1	WSE8
Bromodichloromethane	<1.00		1.00		ug/L		02/03/23 15:19	1	WSE8
Bromoform	<5.00		5.00		ug/L		02/03/23 15:19	1	WSE8
Bromomethane	<4.00		4.00		ug/L		02/03/23 15:19	1	WSE8
Carbon tetrachloride	<2.00		2.00		ug/L		02/03/23 15:19	1	WSE8
Chlorobenzene	2.52		1.00		ug/L		02/03/23 15:19	1	WSE8
Dibromochloromethane	<5.00		5.00		ug/L		02/03/23 15:19	1	WSE8
Chloroethane	<4.00		4.00		ug/L		02/03/23 15:19	1	WSE8
Chloroform	<3.00		3.00		ug/L		02/03/23 15:19	1	WSE8
Chloromethane	<3.00		3.00		ug/L		02/03/23 15:19	1	WSE8
Ethylbenzene	<1.00		1.00		ug/L		02/03/23 15:19	1	WSE8
Methylene Chloride	<5.00		5.00		ug/L		02/03/23 15:19	1	WSE8
Tetrachloroethene	<1.00		1.00		ug/L		02/03/23 15:19	1	WSE8
Toluene	<1.00		1.00		ug/L		02/03/23 15:19	1	WSE8
Trichloroethene	<1.00		1.00		ug/L		02/03/23 15:19	1	WSE8
Vinyl chloride	<1.00		1.00		ug/L		02/03/23 15:19	1	WSE8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Analyzed*	*Dil Fac*	*Analyst*
Dibromofluoromethane (Surr)	*103*		*70 - 130*	*02/03/23 15:19*	*1*	*WSE8*
Dibromofluoromethane (Surr)	*108*		*70 - 130*	*02/06/23 13:06*	*1*	*WSE8*
Toluene-d8 (Surr)	*100*		*70 - 130*	*02/03/23 15:19*	*1*	*WSE8*
Toluene-d8 (Surr)	*103*		*70 - 130*	*02/06/23 13:06*	*1*	*WSE8*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/03/23 15:19*	*1*	*WSE8*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/06/23 13:06*	*1*	*WSE8*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Acenaphthene	<9.62		9.62		ug/L		02/06/23 18:50	1	L0FS
Acenaphthylene	<9.62		9.62		ug/L		02/06/23 18:50	1	L0FS
Anthracene	<9.62		9.62		ug/L		02/06/23 18:50	1	L0FS
Benzo[a]anthracene	<9.62		9.62		ug/L		02/06/23 18:50	1	L0FS
Benzo[a]pyrene	<9.62		9.62		ug/L		02/06/23 18:50	1	L0FS
Benzo[b]fluoranthene	<9.62		9.62		ug/L		02/06/23 18:50	1	L0FS
Benzo[g,h,i]perylene	<9.62		9.62		ug/L		02/06/23 18:50	1	L0FS
Benzoic acid	<96.2		96.2		ug/L		02/06/23 18:50	1	L0FS
Benzo[k]fluoranthene	<9.62		9.62		ug/L		02/06/23 18:50	1	L0FS
Benzyl alcohol	<9.62		9.62		ug/L		02/06/23 18:50	1	L0FS
Bis(2-chloroethoxy)methane	<9.62		9.62		ug/L		02/06/23 18:50	1	L0FS
Bis(2-chloroethyl)ether	<9.62		9.62		ug/L		02/06/23 18:50	1	L0FS
bis (2-chloroisopropyl) ether	<9.62		9.62		ug/L		02/06/23 18:50	1	L0FS

Client Sample ID: Landfill Leachate
Date Collected: 02/01/23 11:00
Date Received: 02/02/23 14:40

Lab Sample ID: 310-249055-1
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Bis(2-ethylhexyl) phthalate	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
4-Bromophenyl phenyl ether	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Butyl benzyl phthalate	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
4-Chloro-3-methylphenol	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
2-Chloronaphthalene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
2-Chlorophenol	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
4-Chlorophenyl phenyl ether	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Chrysene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Dibenz(a,h)anthracene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Dibenzofuran	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
1,2-Dichlorobenzene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
1,3-Dichlorobenzene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
1,4-Dichlorobenzene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
3,3'-Dichlorobenzidine	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
2,4-Dichlorophenol	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Diethyl phthalate	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
2,4-Dimethylphenol	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Dimethyl phthalate	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Di-n-butyl phthalate	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
4,6-Dinitro-2-methylphenol	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
2,4-Dinitrophenol	<19.2		19.2		ug/L		02/06/23 18:50	1	LOFS
2,4-Dinitrotoluene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
2,6-Dinitrotoluene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Di-n-octyl phthalate	<19.2		19.2		ug/L		02/06/23 18:50	1	LOFS
Fluoranthene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Fluorene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Hexachlorobenzene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Hexachlorobutadiene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Hexachlorocyclopentadiene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Hexachloroethane	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Indeno[1,2,3-cd]pyrene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Isophorone	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Naphthalene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Nitrobenzene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
2-Nitrophenol	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
4-Nitrophenol	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
N-Nitrosodi-n-propylamine	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
N-Nitrosodiphenylamine	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Pentachlorophenol	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Phenanthrene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
Pyrene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
1,2,4-Trichlorobenzene	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
2,4,5-Trichlorophenol	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS
2,4,6-Trichlorophenol	<9.62		9.62		ug/L		02/06/23 18:50	1	LOFS

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Analyzed*	*Dil Fac*	*Analyst*
2-Fluorobiphenyl (Surr)	*71*		*28 - 110*	*02/06/23 18:50*	*1*	*LOFS*
2-Fluorophenol (Surr)	*52*		*13 - 110*	*02/06/23 18:50*	*1*	*LOFS*
Nitrobenzene-d5 (Surr)	*79*		*27 - 115*	*02/06/23 18:50*	*1*	*LOFS*
Phenol-d5 (Surr)	*48*		*12 - 110*	*02/06/23 18:50*	*1*	*LOFS*

Client Sample ID: Landfill Leachate
Date Collected: 02/01/23 11:00
Date Received: 02/02/23 14:40

Lab Sample ID: 310-249055-1
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Analyzed	Dil Fac	Analyst
Terphenyl-d14 (Surr)	*61*		*10 - 125*	*02/06/23 18:50*	*1*	*LOFS*
2,4,6-Tribromophenol (Surr)	*55*		*15 - 121*	*02/06/23 18:50*	*1*	*LOFS*

Method: 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Aldrin	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
beta-BHC	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
Chlordane (technical)	<2.00		2.00		ug/L		02/07/23 20:23	1	BW2O
4,4'-DDD	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
4,4'-DDE	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
4,4'-DDT	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
delta-BHC	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
Dieldrin	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
Endosulfan I	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
Endosulfan II	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
Endosulfan sulfate	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
Endrin	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
Endrin aldehyde	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
gamma-BHC (Lindane)	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
Heptachlor	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
Heptachlor epoxide	<0.0640		0.0640		ug/L		02/07/23 20:23	1	BW2O
Toxaphene	<2.00		2.00		ug/L		02/07/23 20:23	1	BW2O

Surrogate	%Recovery	Qualifier	Limits	Analyzed	Dil Fac	Analyst
DCB Decachlorobiphenyl (Surr)	*49*		*10 - 136*	*02/07/23 20:23*	*1*	*BW2O*
Tetrachloro-m-xylene	*70*		*10 - 130*	*02/07/23 20:23*	*1*	*BW2O*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
PCB-1016	<0.800		0.800		ug/L		02/07/23 20:23	1	BW2O
PCB-1221	<0.800		0.800		ug/L		02/07/23 20:23	1	BW2O
PCB-1232	<0.800		0.800		ug/L		02/07/23 20:23	1	BW2O
PCB-1242	<0.800		0.800		ug/L		02/07/23 20:23	1	BW2O
PCB-1248	<0.800		0.800		ug/L		02/07/23 20:23	1	BW2O
PCB-1254	<0.800		0.800		ug/L		02/07/23 20:23	1	BW2O
PCB-1260	<0.800		0.800		ug/L		02/07/23 20:23	1	BW2O

Surrogate	%Recovery	Qualifier	Limits	Analyzed	Dil Fac	Analyst
DCB Decachlorobiphenyl (Surr)	*49*		*10 - 136*	*02/07/23 20:23*	*1*	*BW2O*
Tetrachloro-m-xylene (Surr)	*70*		*10 - 130*	*02/07/23 20:23*	*1*	*BW2O*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Arsenic	0.00312		0.00200		mg/L		02/10/23 21:10	1	A6US
Barium	0.311		0.00200		mg/L		02/10/23 21:10	1	A6US
Cadmium	<0.000100		0.000100		mg/L		02/10/23 21:10	1	A6US
Chromium	<0.00500		0.00500		mg/L		02/10/23 21:10	1	A6US
Copper	<0.00500		0.00500		mg/L		02/10/23 21:10	1	A6US
Iron	27.9		0.100		mg/L		02/10/23 21:10	1	A6US
Lead	0.000922		0.000500		mg/L		02/10/23 21:10	1	A6US

Client: City of Fredericksburg
Project/Site: Wastewater

Job ID: 310-249055-1

Client Sample ID: Landfill Leachate
Date Collected: 02/01/23 11:00
Date Received: 02/02/23 14:40

Lab Sample ID: 310-249055-1
Matrix: Water

Method: 200.8 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Selenium	<0.00500		0.00500		mg/L		02/10/23 21:10	1	A6US
Silver	<0.00100		0.00100		mg/L		02/10/23 21:10	1	A6US
Nickel	0.0143		0.00500		mg/L		02/10/23 21:10	1	A6US
Zinc	<0.0200		0.0200		mg/L		02/10/23 21:10	1	A6US

Method: 245.2 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Mercury	<0.000200		0.000200		mg/L		02/08/23 11:28	1	DHM5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
HEM (Oil & Grease)	<4.7	F1	4.7		mg/L		02/09/23 08:30	1	DGU1
Ammonia	71.0		25.0		mg/L		02/07/23 20:39	1	ZJX4
Nitrogen, Kjeldahl	88.1		10.0		mg/L		02/06/23 11:09	10	HE7K
Total Suspended Solids	98.0		30.0		mg/L		02/03/23 08:00	1	DGU1
Total Dissolved Solids	1260		50.0		mg/L		02/07/23 15:14	1	ENB7
Biochemical Oxygen Demand	10.9		3.00		mg/L		02/02/23 15:32	1	W9YR
Total Organic Carbon - Average Dup	30.2		1.00		mg/L		02/13/23 17:58	1	BC

Accreditation/Certification and Definitions Summary

Client: City of Fredericksburg
Project/Site: Wastewater

Job ID: 310-249055-1

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	1,3-Dichloropropene, Total
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
625.1	625	Water	Dibenzofuran

Laboratory: Eurofins Chicago

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2903	04-29-23
Georgia	State	N/A	04-30-23
Georgia (DW)	State	939	04-30-23
Hawaii	State	NA	04-29-23
Illinois	NELAP	IL00035	04-30-23
Indiana	State	C-IL-02	04-29-23
Iowa	State	082	05-01-24
Kansas	NELAP	E-10161	10-31-23
Kentucky (UST)	State	AI # 108083	04-29-23
Kentucky (WW)	State	KY90023	12-31-22 *
Louisiana (All)	NELAP	02046	06-30-23
Mississippi	State	NA	04-30-23
North Carolina (WW/SW)	State	291	12-31-23
North Dakota	State	R-194	04-30-23
Oklahoma	State	8908	08-31-23
South Carolina	State	77001003	04-29-23
USDA	US Federal Programs	P330-18-00018	02-11-24
Wisconsin	State	998580010	08-31-23
Wyoming	State	8TMS-Q	04-30-23

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
MRL	Method Reporting Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
SDL	Sample Detection Limit
SDL	Sample Detection Limit
SDL	Sample Detection Limit
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: City of Fredericksburg
Project/Site: Wastewater

Job ID: 310-249055-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CF
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CF
608.3	Organochlorine Pesticides in Water	40CFR136A	EET CF
608.3	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	EET CF
200.8	Metals (ICP/MS)	EPA	EET CF
245.2	Mercury (CVAA)	EPA	EET CF
1664A	HEM and SGT-HEM by Extraction and Gravimetry	40CFR136A	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 5210B	BOD, 5-Day	SM	EET CF
SM 5310C	TOC	SM	EET CHI
1664A	HEM and SGT-HEM (SPE)	1664A	EET CF
200.8	Preparation, Total Metals	EPA	EET CF
245.1	Preparation, Mercury	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	EET CF
625	Liquid-Liquid Extraction	40CFR136A	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

eurofins | Environment Testing America

310-249055 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: CO Fredericksburg

City/State: CITY | STATE VA | Project:

Receipt Information

Date/Time Received: DATE 2/2/23 | TIME 1440 | Received By:

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☐ Yes ☒ No *If yes:* Cooler # ____ of ____

Cooler Custody Seals Present? ☒ Yes ☐ No *If yes:* Cooler custody seals intact? ☒ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ Other: ____ ☐ NONE

Thermometer ID: T | Correction Factor (°C): +0.1

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 8.2 | Corrected Temp (°C): 8.3

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:	PL 250 H_2SO_4	PL 250 NaOH
Uncorrected Temp (°C):	8.4	9.1
Corrected Temp (°C):	8.5	9.2

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Chain of Custody Record 604742

Address _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

Client Contact	Project Manager: Matt Hummel	Site Contact: Ray Armbrecht	Date:
Company Name: City Fredericksburg	Tel/Email:	Lab Contact:	Carrier:
Address: 151 W Main Street	Analysis Turnaround Time		
City/State/Zip: Fredericksburg IA 50630	☐ CALENDAR DAYS ☐ WORKING DAYS		
Phone: 641-330-3188	TAT if different from Below _____		
Email: wwtp@fburg.iowa.gov	☐ 2 weeks		
Project Name: Chickasaw County Landfill	☐ 1 week		
Site: Leachate	☐ 2 days		
P.O.#: Hauler Dave Trewin	☐ 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	
Landfill Leachate	2-1-23	11 AM	G		1			
Landfill Leachate	2-1-23	11 AM	G		1			
Landfill Leachate	2-1-23	11 AM	G		1			
Landfill Leachate	2-1-23	11 AM	G		2			
Landfill Leachate	2-1-23	11 AM	G		6			
Landfill Leachate	2-1-23	11 AM	G		3			
Landfill Leachate	2-1-23	11 AM	G		3			
Landfill Leachate	2-1-23	11 AM	G		3			

See Attached Sheet

Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____

Special Instructions/QC Requirements & Comments:

PH 6.63

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No		Cooler Temp (°C) Obs'd _____ Corr'd _____	
Relinquished by	Company: Fredericksburg	Date/Time: 2-2-23 8:55	Received by: MV	Company
Relinquished by	Company	Date/Time	Received by	Company
Relinquished by	Company	Date/Time	Received in Laboratory by	Company

Page 13 of 15

2/6/2023

Bottle Order Information

Bottle Order Landfill Leachate
Bottle Order # 17000
Request From Client 2/1/2023
Date Order Posted 1/28/2021 8 50 03AM
Order Status. Ready To Process
Prepared By Shirley Thompson
Deliver By Date: ***2/2/2023 11:59:00PM***
Lab Project Number 31001577
PWSID.

Order Completion Information

Creator: Matthew Hummel
Filled by
Sent Date
Sent Via
Tracking #.

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	
1	1	1	Plastic 250ml - with Sulfuric Acid	Sulfuric Acid		Water	Normal	A
1	1	1	Plastic 250ml - with Nitric Acid	Nitric Acid	245.2 - Mercury 200.8_CWA - Metals	Water Water	Normal Normal	
1	3	3	Voa Vial 40ml - Hydrochloric Acid	Hydrochloric Acid		Water	Normal	
1	6	6	Amber Glass 250ml - unpreserved	None		Water	Normal	6
1	1	1	Plastic 1 liter - unpreserved	None		Water	Normal	B
1	2	2	Amber Glass 1L Narrow - Sulfuric Acid	Sulfuric Acid		Water	Normal	
1	3	3	Voa Vial 40ml - with Sulfuric Acid	Sulfuric Acid		Water	Normal	
1	3	3	Voa Vial 40ml - unpreserved	None		Water	Normal	

Total Bottle Summary

Bottle Type Description	Preservative	Bottle Count
Amber Glass 1L Narrow - Sulfuric Acid	Sulfuric Acid	2
Amber Glass 250ml - unpreserved	None	6
Plastic 1 liter - unpreserved	None	1
Plastic 250ml - with Nitric Acid	Nitric Acid	1
Plastic 250ml - with Sulfuric Acid	Sulfuric Acid	1
Voa Vial 40ml - Hydrochloric Acid	Hydrochloric Acid	3
Voa Vial 40ml - unpreserved	None	3
Voa Vial 40ml - with Sulfuric Acid	Sulfuric Acid	3
	Total Bottles:	20

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provi

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613
Phone 319-277-2401 Fax 319 277 2425

Chain of Custody Record

Client Information (Sub Contract Lab)	Sampler	Lab PM: Hummel Matthew R	COC No(s): 310-249055 COC
Client Contact: Shipping/Receiving	Phone	E-Mail: Matthew.Hummel@eLeurofinsus.com	State of Origin: Iowa
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): State Program Iowa	
Address: 2417 Bond Street	Due Date Requested: 2/15/2023	Analysis Requested	
City: University Park	TAT Requested (days):		
State, Zip: IL 60484			
Phone: 708-534-5200(Tel) 708-534-5211(Fax)	PO #:		
Email:	WO #:		
Project Name: Wastewater	Project #: 31001577		
Site: 310 City of Fredericksburg Wastewater	SSOW#:		

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5310C/ TOC	Total Number of containers
			Preservation Code:					
Landfill Leachate (310-249055-1)	2/1/23	11 00 Central		Water			X	3

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central LLC laboratory or other accreditation status should be brought to Eurofins Environment Testing North Central LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofi

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retaine*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archi*
Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by		Date	Time		Method of Shipment
Relinquished by:	Date/Time: 2/3/23 / 1435	Company	Received by: Stephanie Herrera		Date/Time: 2/4/2
Relinquished by	Date/Time	Company	Received by		Date/Time
Relinquished by	Date/Time	Company	Received by		Date/Time
Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 0.3 0.1		

Chickasaw County Leachate / Metals /

			Quantity	Unit Price	Amount
J249055-1	Wastewater	02/02/2023			
	1664A - Oil and Grease (HEM)		1.00	47.00	47.00
	245.2 - Mercury		1.00	18.75	18.75
	SM 2540C - TDS		1.00	10.00	10.00
	350.1 - Ammonia		1.00	21.00	21.00
	351.2 - TKN		1.00	29.00	29.00
	608.3 - PCBs		1.00	80.00	80.00
	608.3 - Pesticides		1.00	100.00	100.00
	624.1 - Volatiles		1.00	90.45	90.45
	625.1 - Semivolatiles		1.00	250.00	250.00
	I-3765-85 - TSS		1.00	10.00	10.00
	SM 5210B - BOD		1.00	21.00	21.00
	SM 5310C - TOC		1.00	28.00	28.00

J249055-1	Wastewater	02/02/2023			
	200.8 - Arsenic		1.00	9.00	9.00
	200.8 - Barium		1.00	9.00	9.00
	200.8 - Cadmium		1.00	9.00	9.00
	200.8 - Chromium		1.00	9.00	9.00
	200.8 - Copper		1.00	9.00	9.00
	200.8 - Iron		1.00	9.00	9.00
	200.8 - Lead		1.00	9.00	9.00
	200.8 - Nickel		1.00	9.00	9.00
	200.8 - Selenium		1.00	9.00	9.00
	200.8 - Silver		1.00	9.00	9.00
	200.8 - Zinc		1.00	9.00	9.00

total
716.70

2024

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ray Armbrecht
City of Fredericksburg
151 West Main St. PO BOX 318
Fredericksburg, Iowa 50630

Generated 2/19/2024 9:02:41 PM

JOB DESCRIPTION

Wastewater

Leachate Metals

JOB NUMBER

310-274618-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report was automatically generated by Eurofins Cedar Falls LIMS system, after peer review by each individual department. If you notice any issues please contact your project manager or call the lab at 319-277-2401.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
2/19/2024 9:02:41 PM

Authorized for release by
Matthew Hummel, Project Manager I
Matthew.Hummel@et.eurofinsus.com
(319)595-2010

Job Narrative
310-274618-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 2/8/2024 3:00 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.3°C.

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
Method 608.3_Pest_PREC: The laboratory control sample (LCS/LCSD) for preparation batch 310-413216 and analytical batch 310-413757 recovered outside control limits for the following analytes: Aldrin. The sample is outside of hold time and the analyte was not detected in the sample, so reanalysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method SM5210B_Calc: The following sample underdepleted: Landfill Leachate (310-274618-1). Results have been reported and may be biased high.

Method SM5210B_Calc: The following sample was received outside of holding time: Landfill Leachate (310-274618-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: City of Fredericksburg
Project/Site: Wastewater

Job ID: 310-274618-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-274618-1	Landfill Leachate	Water	02/05/24 13:00	02/08/24 15:00

Client: City of Fredericksburg
Project/Site: Wastewater

Job ID: 310-274618-1

Client Sample ID: Landfill Leachate
Date Collected: 02/05/24 13:00
Date Received: 02/08/24 15:00

Lab Sample ID: 310-274618-1
Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
1,1,1-Trichloroethane	<1.00		1.00		ug/L		02/09/24 16:07	1	FE5V
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L		02/09/24 16:07	1	FE5V
1,1,2-Trichloroethane	<1.00		1.00		ug/L		02/09/24 16:07	1	FE5V
1,1-Dichloroethane	<1.00		1.00		ug/L		02/09/24 16:07	1	FE5V
1,1-Dichloroethene	<2.00		2.00		ug/L		02/09/24 16:07	1	FE5V
1,2-Dichloroethane	<1.00		1.00		ug/L		02/09/24 16:07	1	FE5V
1,2-Dichloroethene, Total	<1.00		1.00		ug/L		02/09/24 16:07	1	FE5V
1,2-Dichloropropane	<1.00		1.00		ug/L		02/09/24 16:07	1	FE5V
1,3-Dichloropropene, Total	<5.00		5.00		ug/L		02/09/24 16:07	1	FE5V
2-Chloroethyl vinyl ether	<2.00		2.00		ug/L		02/09/24 16:07	1	FE5V
Benzene	1.25		0.500		ug/L		02/09/24 16:07	1	FE5V
Bromodichloromethane	<1.00		1.00		ug/L		02/09/24 16:07	1	FE5V
Bromoform	<5.00		5.00		ug/L		02/09/24 16:07	1	FE5V
Bromomethane	<4.00		4.00		ug/L		02/09/24 16:07	1	FE5V
Carbon tetrachloride	<2.00		2.00		ug/L		02/09/24 16:07	1	FE5V
Chlorobenzene	2.13		1.00		ug/L		02/09/24 16:07	1	FE5V
Dibromochloromethane	<5.00		5.00		ug/L		02/09/24 16:07	1	FE5V
Chloroethane	<4.00		4.00		ug/L		02/09/24 16:07	1	FE5V
Chloroform	<3.00		3.00		ug/L		02/09/24 16:07	1	FE5V
Chloromethane	<3.00		3.00		ug/L		02/09/24 16:07	1	FE5V
Ethylbenzene	<1.00		1.00		ug/L		02/09/24 16:07	1	FE5V
Methylene Chloride	<5.00		5.00		ug/L		02/09/24 16:07	1	FE5V
Tetrachloroethene	<1.00		1.00		ug/L		02/09/24 16:07	1	FE5V
Toluene	<1.00		1.00		ug/L		02/09/24 16:07	1	FE5V
Trichloroethene	<1.00		1.00		ug/L		02/09/24 16:07	1	FE5V
Vinyl chloride	<1.00		1.00		ug/L		02/09/24 16:07	1	FE5V

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Analyzed*	*Dil Fac*	*Analyst*
Dibromofluoromethane (Surr)	*108*		*70 - 130*	*02/09/24 16:07*	*1*	*FE5V*
Toluene-d8 (Surr)	*98*		*70 - 130*	*02/09/24 16:07*	*1*	*FE5V*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/09/24 16:07*	*1*	*FE5V*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Acenaphthene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Acenaphthylene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Anthracene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Benzo[a]anthracene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Benzo[a]pyrene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Benzo[b]fluoranthene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Benzo[g,h,i]perylene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Benzoic acid	<96.2		96.2		ug/L		02/19/24 17:06	1	L0FS
Benzo[k]fluoranthene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Benzyl alcohol	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Bis(2-chloroethoxy)methane	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Bis(2-chloroethyl)ether	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
bis (2-chloroisopropyl) ether	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Bis(2-ethylhexyl) phthalate	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
4-Bromophenyl phenyl ether	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Butyl benzyl phthalate	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS

Client Sample ID: Landfill Leachate
Date Collected: 02/05/24 13:00
Date Received: 02/08/24 15:00

Lab Sample ID: 310-274618-1
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
4-Chloro-3-methylphenol	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
2-Chloronaphthalene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
2-Chlorophenol	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
4-Chlorophenyl phenyl ether	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Chrysene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Dibenz(a,h)anthracene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Dibenzofuran	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
1,2-Dichlorobenzene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
1,3-Dichlorobenzene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
1,4-Dichlorobenzene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
3,3'-Dichlorobenzidine	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
2,4-Dichlorophenol	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Diethyl phthalate	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
2,4-Dimethylphenol	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Dimethyl phthalate	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Di-n-butyl phthalate	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
4,6-Dinitro-2-methylphenol	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
2,4-Dinitrophenol	<19.2		19.2		ug/L		02/19/24 17:06	1	L0FS
2,4-Dinitrotoluene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
2,6-Dinitrotoluene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Di-n-octyl phthalate	<19.2		19.2		ug/L		02/19/24 17:06	1	L0FS
Fluoranthene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Fluorene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Hexachlorobenzene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Hexachlorobutadiene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Hexachlorocyclopentadiene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Hexachloroethane	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Indeno[1,2,3-cd]pyrene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Isophorone	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Naphthalene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Nitrobenzene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
2-Nitrophenol	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
4-Nitrophenol	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
N-Nitrosodi-n-propylamine	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
N-Nitrosodiphenylamine	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Pentachlorophenol	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Phenanthrene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
Pyrene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
1,2,4-Trichlorobenzene	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
2,4,5-Trichlorophenol	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS
2,4,6-Trichlorophenol	<9.62		9.62		ug/L		02/19/24 17:06	1	L0FS

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Analyzed*	*Dil Fac*	*Analyst*
2-Fluorobiphenyl (Surr)	*77*		*39 - 118*	*02/19/24 17:06*	*1*	*L0FS*
2-Fluorophenol (Surr)	*67*		*25 - 110*	*02/19/24 17:06*	*1*	*L0FS*
Nitrobenzene-d5 (Surr)	*86*		*45 - 129*	*02/19/24 17:06*	*1*	*L0FS*
Phenol-d5 (Surr)	*53*		*21 - 110*	*02/19/24 17:06*	*1*	*L0FS*
Terphenyl-d14 (Surr)	*71*		*12 - 144*	*02/19/24 17:06*	*1*	*L0FS*
2,4,6-Tribromophenol (Surr)	*83*		*27 - 136*	*02/19/24 17:06*	*1*	*L0FS*

Client Sample ID: Landfill Leachate

Lab Sample ID: 310-274618-1

Date Collected: 02/05/24 13:00
Date Received: 02/08/24 15:00

Matrix: Water

Method: 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Aldrin	<0.0615	*-	0.0615		ug/L		02/15/24 19:27	1	BW2O
beta-BHC	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
Chlordane (technical)	<1.92		1.92		ug/L		02/15/24 19:27	1	BW2O
4,4'-DDD	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
4,4'-DDE	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
4,4'-DDT	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
delta-BHC	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
Dieldrin	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
Endosulfan I	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
Endosulfan II	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
Endosulfan sulfate	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
Endrin	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
Endrin aldehyde	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
gamma-BHC (Lindane)	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
Heptachlor	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
Heptachlor epoxide	<0.0615		0.0615		ug/L		02/15/24 19:27	1	BW2O
Toxaphene	<1.92		1.92		ug/L		02/15/24 19:27	1	BW2O

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Analyzed*	*Dil Fac*	*Analyst*
DCB Decachlorobiphenyl (Surr)	*53*		*10 - 136*	*02/15/24 19:27*	*1*	*BW2O*
Tetrachloro-m-xylene	*77*		*10 - 130*	*02/15/24 19:27*	*1*	*BW2O*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
PCB-1016	<0.769		0.769		ug/L		02/15/24 19:27	1	BW2O
PCB-1221	<0.769		0.769		ug/L		02/15/24 19:27	1	BW2O
PCB-1232	<0.769		0.769		ug/L		02/15/24 19:27	1	BW2O
PCB-1242	<0.769		0.769		ug/L		02/15/24 19:27	1	BW2O
PCB-1248	<0.769		0.769		ug/L		02/15/24 19:27	1	BW2O
PCB-1254	<0.769		0.769		ug/L		02/15/24 19:27	1	BW2O
PCB-1260	<0.769		0.769		ug/L		02/15/24 19:27	1	BW2O

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Analyzed*	*Dil Fac*	*Analyst*
DCB Decachlorobiphenyl (Surr)	*53*		*10 - 136*	*02/15/24 19:27*	*1*	*BW2O*
Tetrachloro-m-xylene (Surr)	*77*		*10 - 130*	*02/15/24 19:27*	*1*	*BW2O*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Arsenic	0.00277		0.00200		mg/L		02/12/24 16:43	1	DHM5
Barium	0.329		0.00200		mg/L		02/12/24 16:43	1	DHM5
Cadmium	<0.000200		0.000200		mg/L		02/12/24 16:43	1	DHM5
Chromium	<0.00500		0.00500		mg/L		02/12/24 16:43	1	DHM5
Copper	<0.00500		0.00500		mg/L		02/12/24 16:43	1	DHM5
Iron	24.6		0.100		mg/L		02/12/24 16:43	1	DHM5
Lead	0.00402		0.000500		mg/L		02/12/24 16:43	1	DHM5
Selenium	<0.00500		0.00500		mg/L		02/12/24 16:43	1	DHM5
Silver	<0.00100		0.00100		mg/L		02/12/24 16:43	1	DHM5
Nickel	0.0142		0.00500		mg/L		02/12/24 16:43	1	DHM5
Zinc	<0.0200		0.0200		mg/L		02/12/24 16:43	1	DHM5

Client: City of Fredericksburg
Project/Site: Wastewater

Job ID: 310-274618-1

Client Sample ID: Landfill Leachate
Date Collected: 02/05/24 13:00
Date Received: 02/08/24 15:00

Lab Sample ID: 310-274618-1
Matrix: Water

Method: 245.2 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Mercury	<0.000200		0.000200		mg/L		02/15/24 10:46	1	ZRI4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
HEM (Oil & Grease)	<4.7		4.7		mg/L		02/17/24 13:14	1	DGU1
Ammonia	87.8		25.0		mg/L		02/13/24 16:38	1	WZC8
Nitrogen, Kjeldahl	84.9		10.0		mg/L		02/12/24 12:15	10	ENB7
Total Suspended Solids	74.0		30.0		mg/L		02/09/24 16:01	1	ENB7
Total Dissolved Solids	1230		50.0		mg/L		02/09/24 14:25	1	D7CP
Biochemical Oxygen Demand	5.85	H H3	3.00		mg/L		02/08/24 15:33	1	W9YR
Total Organic Carbon	51.9		10.0		mg/L		02/14/24 00:00	10	WZC8

Accreditation/Certification and Definitions Summary

Client: City of Fredericksburg
Project/Site: Wastewater

Job ID: 310-274618-1

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	1,3-Dichloropropene, Total
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
625.1	625	Water	Dibenzofuran

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
MRL	Method Reporting Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
SDL	Sample Detection Limit
SDL	Sample Detection Limit
SDL	Sample Detection Limit
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method Summary

Client: City of Fredericksburg
Project/Site: Wastewater

Job ID: 310-274618-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CF
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CF
608.3	Organochlorine Pesticides in Water	EPA	EET CF
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CF
200.8	Metals (ICP/MS)	EPA	EET CF
245.2	Mercury (CVAA)	EPA	EET CF
1664A	HEM and SGT-HEM by Extraction and Gravimetry	40CFR136A	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 5210B	BOD, 5-Day	SM	EET CF
SM 5310C	TOC	SM	EET CF
1664A	HEM and SGT-HEM (SPE)	1664A	EET CF
200.8	Preparation, Total Metals	EPA	EET CF
245.1	Preparation, Mercury	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CF
625	Liquid-Liquid Extraction	EPA	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

eurofins | Environment Testing America

310-274618 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: City of Fredericksburg

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 2/8/24 | TIME 1500 | Received By: AM

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☒ No	*If yes:* Cooler # ____ of ____
Cooler Custody Seals Present? No	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: ☐ NONE

Thermometer ID: X | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.3 | Corrected Temp (°C): 2.3

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Chain of Custody Record

653706

eurofins | Environment Testing America

Address _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact	Project Manager: Matt Hunnel	Site Contact: Ty Hornbuckle	Date:	COC No
Company Name: City Fredericksburg	Tel/Email:	Lab Contact:	Carrier:	____ of ____ COCs
Address: 151 W Main Street	Analysis Turnaround Time			Sampler:
City/State/Zip: Fredericksburg IA 50630	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 641-330-3198	TAT if different from Below ____			Walk-in Client:
~~Fax~~ E-Mail: wwtp@fburg.ia.gov	☐ 2 weeks			Lab Sampling:
Project Name: Chickasaw County Landfill Leachate	☐ 1 week			Job / SDG No:
Site:	☐ 2 days			
~~P.O.#~~ Hauler Dave Trewin	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Preservation Sample Specific Notes
Landfill Leachate	2-5-24	1 PM	G		1			H_2SO_4
Landfill Leachate	2-5-24	1 PM	G		1			HNO_3
Landfill Leachate	2-5-24	1 PM	G		1			None
Landfill Leachate	2-5-24	1 PM	G		2			H_2SO_4
Landfill Leachate	2-5-24	1 PM	G		6			NONE
Landfill Leachate	2-5-24	1 PM	G		3			HCl
Landfill Leachate	2-5-24	1 PM	G		3			H_2SO_4
Landfill Leachate	2-5-24	1 PM	G		3			NONE

See Attached Sheet

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4= HNO_3; 5= NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
pH 6.69

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C) Obs'd ____ Corr'd ____ Therm ID No ____

Relinquished by:	Company: Fredericksburg	Date/Time: 2-9-24	Received by: MU	Company:	Date/Time: 2-8-24 1500
Relinquished by:	Company:	Date/Time: 7:30AM	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

2/15/2024

Bottle Order Information

Bottle Order Landfill Leachate
Bottle Order # 17000
Request From Client 1/23/2024
Date Order Posted 1/28/2021 8 50 03AM
Order Status In Process
Prepared By Shirley Thompson
Deliver By Date: ***1/23/2024 10:00:00AM***
Lab Project Number 31001577
PWSID

Order Completion Information

Creator Matthew Hummel
Filled by
Sent Date
Sent Via
Tracking #

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
1	1	1	Plastic 250ml - with Sulfuric Acid	Sulfuric Acid		Water	Normal	Ammonia/TKN	
1	1	1	Plastic 250ml - with Nitric Acid	Nitric Acid	245.2 - Mercury 200 8_CWA - Metals	Water Water	Normal Normal	Metals	
1	3	3	Voa Vial 40ml - Hydrochloric Acid	Hydrochloric Acid		Water	Normal	VOCs	
1	6	6	Amber Glass 250ml - unpreserved	None		Water	Normal	608 Pest/608 PCBs/625	
1	1	1	Plastic 1 liter - unpreserved	None		Water	Normal	BOD/TSS/TDS	
1	2	2	Amber Glass 1L Narrow - Sulfuric Acid	Sulfuric Acid		Water	Normal	Oil & Grease	
1	3	3	Voa Vial 40ml - with Sulfuric Acid	Sulfuric Acid		Water	Normal	TOC	
1	3	3	Voa Vial 40ml - unpreserved	None		Water	Normal	VOC	

Total Bottle Summary

Bottle Type Description	Preservative	Sample Type	Bottle Count
Amber Glass 1L Narrow - Sulfuric Acid	Sulfuric Acid	Normal	2
Amber Glass 250ml - unpreserved	None	Normal	6
Plastic 1 liter - unpreserved	None	Normal	1
Plastic 250ml - with Nitric Acid	Nitric Acid	Normal	1
Plastic 250ml - with Sulfuric Acid	Sulfuric Acid	Normal	1
Voa Vial 40ml - Hydrochloric Acid	Hydrochloric Acid	Normal	3
Voa Vial 40ml - unpreserved	None	Normal	3
Voa Vial 40ml - with Sulfuric Acid	Sulfuric Acid	Normal	3
		Total Bottles	20

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.