

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673



231-773-5998 Phone
888-979-4469 Fax
www.trace-labs.com

April 07, 2022

Tom Thompson
Manchester, Village of
912 City Rd. P.O. Box 485
Manchester, MI 48158

RE: Trace Project 22C0853
Client Project Village of Manchester 3/21/22

Enclosed are your analytical results. The results of this report relate only to the samples listed in the body of this report.

All reports were examined through Trace's validation process to ensure that requirements for quality and completeness were satisfied. All reported analytical results were obtained in accordance with the methods referenced on the reports. Every practical effort was made to meet the reporting limit specifications for this work, however, some results may have raised reporting limits to correct for percent solids.

The results were obtained from Fibertec Environmental Services.

For clients that require NELAC Accreditation, Trace certifies that these test results meet all requirements of the NELAC Standard, except for those analytes with a "N" notation. These analytes have not been evaluated by NELAC at Trace's discretion and will not be reported unless requested by client.

If you have questions concerning this report, please contact me at 231.773.5998 or by email at tbrewer@trace-labs.com.

Sincerely,

A handwritten signature in black ink that reads "Timothy W. Brewer".

Tim Brewer
Project Manager

Enclosures



NJDEP Accreditation No. MI008

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SAMPLE SUMMARY

Trace Project ID: 22C0853
Client Project ID: Village of Manchester 3/21/22

Trace ID	Sample ID	Matrix	Collected By	Date Collected	Date Received
22C0853-01	PFAS Biosolids - March	Sludge	TT	03/21/22 11:30	03/23/22 11:40

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AN EXPLANATION OF TERMS AND SYMBOLS WHICH MAY OCCUR IN THIS REPORT

DEFINITIONS

LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Difference
DUP	Matrix Duplicate
RDL	Reporting Detection Limit
MCL	Maximum Contamination Limit
TIC	Tentatively Identified Compound
<, ND or U	Indicates the compound was analyzed for but not detected
*	Indicates a result that exceeds its associated MCL or Surrogate control limits
N	Indicates that the compound has not been evaluated by NELAC
NA	Indicates that the compound is not available.



Thursday, April 07, 2022

Fibertec Project Number: A07612
Project Identification: 22C0853 /22C0853
Submittal Date: 03/24/2022

Mr. Tim Brewer
Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444

Dear Mr. Brewer,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 7 calendar days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

Percent Solids for sample -001 were reported at 4.8%.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink that reads "Sue Ricketts". The signature is fluid and cursive.

By Sue Ricketts at 10:07 AM, Apr 07, 2022

For Daryl P. Strandbergh
Laboratory Director

Enclosures

1914 Holloway Drive
11766 E. Grand River
8660 S. Mackinaw Trail

Holt, MI 48842
Brighton, MI 48116
Cadillac, MI 49601

T: (517) 699-0345
T: (810) 220-3300
T: (231) 775-8368

F: (517) 699-0388
F: (810) 220-3311
F: (231) 775-8584

Client Identification:	Trace Analytical Laboratories, Inc.	Sample Description:	PFAS Biosolids - March	Chain of Custody:	NA
Client Project Name:	22C0853	Sample No:		Collect Date:	03/21/22
Client Project No:	22C0853	Sample Matrix:	Biosolids	Collect Time:	11:30

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

PFAS				Aliquot ID: A07612-001		Matrix: Biosolids				
Method: ASTM D7968-17a				Description: PFAS Biosolids - March						
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. ADONA	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 2. 9CI-PF3ONS	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 3. 11CI-PF3OUdS	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 4. N-EtFOSAA	6.0		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 5. FtS 4:2	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 6. FtS 6:2	2.6		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 7. FtS 8:2	4.2		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 8. HFPO-DA	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 9. N-MeFOSAA	19		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 10. PFBA	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 11. PFBS	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 12. PFDA	7.5		µg/kg	2.1	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 13. PFDoA	2.9		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 14. PFDS	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 15. PFHpA	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 16. PFHpS	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 17. PFHxA	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 18. PFHxS-Total	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 19. PFNA	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 20. PFNS	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 21. PFOA	U		µg/kg	2.1	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 22. PFOSA	3.8		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 23. PFOS-Total	15		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 24. PFPeA	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 25. PFPeS	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 26. PFTeA	U	L+	µg/kg	2.1	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 27. PFTrIA	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG
‡ 28. PFUnA	U		µg/kg	2.0	1.0	03/29/22	PS22C29F	04/05/22	SM22D05A	SKG

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Definitions/ Qualifiers:

- A:** Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QC limits

Exception Summary:

L+ : Recovery in the associated laboratory sample (LCS) exceeds the upper control limit. Results may be biased high.

Analysis Locations:

All analyses performed in Holt.



Accreditation Number(s):

T104704518-19-8 (TX)

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TRIED
ANALYTICAL LABORATORIES, INC.

Trace Analytical Laboratory
2241 Black Creek Road
Muskegon, MI 49444-2673

Phone 231.773.5998
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www.trace-labs.com

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

Trace ID No. 22C0853

Report Results To:

Bill To:

Company Name:	Village of Manchester	PO #:	
Report To:	Tom Thompson	Contact Name:	Jessica Clark
Mailing Address:	912 Gty Rd. P.O. Box 485	Billing Address (if different):	
City, State, Zip Code:	Manchester NH 48158	City, State, Zip Code:	
Office Phone:	(734) 428-7171	Cell Phone:	(517) 605-8528
Phone Number:		Phone Number:	(734) 428-7877
Email Address:	thompson@vil-manchester.org	Billing Email Address:	jclark@vil-manchester.org

Trace Use:	
Logged By:	UC
Checked By:	ME
Soil Volatiles Preserved (circle if applicable):	
MeOH	Low level
	Lab
Sampling Time:	

Turnaround Requirements:

☒ Standard, 5-10 Days☐ 3 Day*☐ 1 Day*

Matrix Key:

S = Soil / Solid WI = Wipes

$W = \text{Water}$

SL = Sludge

$$O_i = O_i$$

LW = Liquor

A = Air

D = Drinking Water

***Results provided end of business day, requires prior approval.**

D = Drinking Water




Project Name:	Village of Manchester
Sampled By:	Tom Thompson

by: Tina Thompson

Analysis Requested

[illegible]

Please Sign

Released By	Received By	Date	Time	Released By	Received By	Date	Time
1) TWT		8/23/22	1140	2) 		3/27/22	1631
3)			4)				

I/In executing this Chain of Custody, the client acknowledges the terms as set forth at www.trace-labs.com/terms-of-agreement.

☒ Check this box if you would not like your samples analyzed if received outside of the conditions outlined in the Trace Sample Acceptance Policy at www.trace-labs.com/downloads

Form 70-Z.1

22C0853

Manchester, Village of
Project Manager: Tim Brewer

Sample Log In Checklist

Date: 3/23/22	Original Observation	Corrected Temperature	IR-9 (CF: +0.4°C)	IR-10 (CF: +0.4°C)	20B12743 (CF: -0.2°C)	Temp Blank	Client Sample
Time: 1631							
Logged by: MR							
Package Description: COOK							
Package Temp °C	-1.2	-0.8					
Representative Sample Temp °C	0.4	0.4					

Sample Receipt

Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Received on ice or other coolant
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Ice still present upon receipt
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Custody seals present
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Trace Courier
Yes <input type="checkbox"/>	No <input type="checkbox"/>	Client Drop-off
Yes <input type="checkbox"/>	No <input type="checkbox"/>	UPS
Yes <input type="checkbox"/>	No <input type="checkbox"/>	Fed Ex
Yes <input type="checkbox"/>	No <input type="checkbox"/>	US Mail
Yes <input type="checkbox"/>	No <input type="checkbox"/>	Other

Sample Condition

Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	All sample containers arrived unbroken and labeled
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	Sufficient sample to run requested analyses
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	Correct chemical preservative added to samples
Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	Samples preserved at Trace
Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	Chemical preservation verified, check EMD pH test strip used (if applicable)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	pH 0-2.5 (Lot: HC046681)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	pH 11.0-13.0 (Lot: HC022540)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	Other
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	Air bubbles absent from VOAs

Chain of Custody (COC)

Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	All bottle labels agree with COC
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	COC filled out properly
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	COC signed by client

Notes: