Fibertec
environmental
services

Thursday, June 03, 2021

Fibertec Project Number:	A01910
Project Identification:	Biosolid Cell 1 /
Submittal Date:	05/20/2021

Mr. Jason Casteel
City of Saginaw
2406 Veterans Memorial Pky.
Saginaw, MI 48601

Dear Mr. Casteel,

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.

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,

By Jacob Sutherlund at 2:34 PM, Jun 03, 2021

For Daryl P. Strandbergh
Laboratory Director

Enclosures

Client Identification:	**City of Saginaw**	Sample Description:	**Biosolid Cell 1**	Chain of Custody:	**198925**
Client Project Name:	**Biosolid Cell 1**	Sample No:		Collect Date:	**05/17/21**
Client Project No:	**NA**	Sample Matrix:	**Biosolids**	Collect Time:	**14:00**

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: A01910-001** **Matrix: Biosolids**
Method: ASTM D7968-17a **Description: Biosolid Cell 1**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. ADONA	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 2. 9Cl-PF3ONS	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 3. 11Cl-PF3OUdS	U	EIS-	µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 4. N-EtFOSAA	**6.6**		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 5. FtS 4:2	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 6. FtS 6:2	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 7. FtS 8:2	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 8. HFPO-DA	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 9. N-MeFOSAA	**15**		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 10. PFBA	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 11. PFBS	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 12. PFDA	**2.2**		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 13. PFDoA	U	EIS-	µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 14. PFDS	**3.8**		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 15. PFHpA	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 16. PFHpS	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 17. PFHxA	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 18. PFHxS-Total	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 19. PFNA	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 20. PFNS	U	F+	µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 21. PFOA	U	B	µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 22. PFOSA	U	EIS-	µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 23. PFOS-Total	**8.0**		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 24. PFPeA	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 25. PFPeS	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 26. PFTeA	**3.1**	EIS-	µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 27. PFTriA	U	EIS-	µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG
‡ 28. PFUnA	U		µg/kg	2.0	1.0	05/26/21	PS21E26H	05/26/21	SM21E26B	SKG

Client Identification:	**City of Saginaw**	Sample Description:	**Blank-Equipment**	Chain of Custody:	**198925**
Client Project Name:	**Biosolid Cell 1**	Sample No:		Collect Date:	**05/17/21**
Client Project No:	**NA**	Sample Matrix:	**Blank: Equipment**	Collect Time:	**14:00**

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: A01910-002** **Matrix: Blank: Equipment**
Method: ASTM D7979-17 **Description: Blank-Equipment**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. ADONA	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 2. 9Cl-PF3ONS	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 3. 11Cl-PF3OUdS	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 4. N-EtFOSAA	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 5. FtS 4:2	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 6. FtS 6:2	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 7. FtS 8:2	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 8. HFPO-DA	U	C-	µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 9. N-MeFOSAA	U	L+	µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 10. PFBA	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 11. PFBS	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 12. PFDA	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 13. PFDoA	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 14. PFDS	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 15. PFHpA	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 16. PFHpS	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 17. PFHxA	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 18. PFHxS-Total	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 19. PFNA	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 20. PFNS	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 21. PFOA	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 22. PFOSA	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 23. PFOS-Total	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 24. PFPeA	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 25. PFPeS	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 26. PFTeA	U	C+	µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 27. PFTriA	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG
‡ 28. PFUnA	U		µg/L	0.10	1.0	05/27/21	PS21E27H	05/27/21	SM21E27A	SKG

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:

B : Analyte is found in the associated method blank as well as in the sample.
C- : Recovery in the Reporting Limit Check Sample (RLCS) exceeds the lower control limit. Results may be biased low.
C+ : Recovery in the Reporting Limit Check Sample (RLCS) exceeds the upper control limit. Results may be biased high.
EIS- : The Isotope Dilution/Extracted Internal Standard area exceeds the lower control limit.
F+ : Recovery from the spiked aliquot exceeds the upper control limit (matrix spike or matrix spike duplicate).
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.

NELAP ACCREDITED TNI LABORATORY

Accreditation Number(s):

T104704518-19-8 (TX)