Technical Report
for
Emerging Contaminants

prepared for:

Brussee Environmental Corp.
14 Evans Lane
Miller Place NY, 11764
Attention: Kevin Brussee

Report Date: 10/01/2021
Client Project ID: 188 East 135th Street, Bronx, Ny
York Project (SDG) No.: 21I1024

CT Cert. No. PH-0723 New Jersey Cert. No. CT005 and NY037 New York Cert. Nos. 10854 and 12058 PA Cert. No. 68-04440

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Report Date: 10/01/2021
Client Project ID: 188 East 135th Street, Bronx, Ny
York Project (SDG) No.: 21I1024

Brussee Environmental Corp.
14 Evans Lane
Miller Place NY, 11764
Attention: Kevin Brussee

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on September 22, 2021 and listed below. The project was identified as your project: **188 East 135th Street, Bronx, Ny**.

The analyses were conducted utilizing appropriate EPA methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

Please contact Client Services at 203.325.1371 with any questions regarding this report or e-mail clientservices@yorklab.com.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
21I1024-01	20B3 (0-2)	Soil	09/20/2021	09/22/2021

General Notes for York Project (SDG) No.: 21I1024

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: Cassie L. Mosher
Laboratory Manager

Date: 10/01/2021

Sample Information

Client Sample ID: 20B3 (0-2)

York Sample ID: 21I1024-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21I1024	188 East 135th Street, Bronx, Ny	Soil	September 20, 2021 3:00 pm	09/22/2021

PFAS, NYSDEC Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

CAS No.	Parameter	Result	Flag	Maximum Contaminant Level MCL	Units	Reported to LOQ	Reference Method	Date/Time Prep/Anal	Analyst
375-73-5	* Perfluorobutanesulfonic acid (PFBS)	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
307-24-4	*** Perfluorohexanoic acid (PFHxA)**	**0.854**		**0**	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
375-85-9	*** Perfluoroheptanoic acid (PFHpA)**	**0.432**		**0**	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
355-46-4	* Perfluorohexanesulfonic acid (PFHxS)	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
335-67-1	*** Perfluorooctanoic acid (PFOA)**	**1.09**		**0**	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
1763-23-1	*** Perfluorooctanesulfonic acid (PFOS)**	**0.524**		**0**	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
375-95-1	* Perfluorononanoic acid (PFNA)	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
335-76-2	* Perfluorodecanoic acid (PFDA)	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
2058-94-8	* Perfluoroundecanoic acid (PFUnA)	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
307-55-1	* Perfluorododecanoic acid (PFDoA)	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
72629-94-8	* Perfluorotridecanoic acid (PFTrDA)	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
2355-31-9	* N-MeFOSAA	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
2991-50-6	* N-EtFOSAA	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
2706-90-3	*** Perfluoropentanoic acid (PFPeA)**	**0.367**		**0**	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
27619-97-2	* 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL
39108-34-4	* 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		0	ug/kg dry Certifications:	0.274	EPA 537m	09/27/2021 16:30 09/30/2021 21:23	WL

Sample Information

Client Sample ID: **20B3 (0-2)** **York Sample ID:** **21I1024-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21I1024	188 East 135th Street, Bronx, Ny	Soil	September 20, 2021 3:00 pm	09/22/2021

PFAS, NYSDEC Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: SPE PFAS Extraction-Soil-EPA 537m

CAS No.	Parameter	Result	Flag	Maximum Contaminant Level MCL	Units	Reported to LOQ	Reference Method	Date/Time Prep/Anal	Analyst
375-22-4	*** Perfluoro-n-butanoic acid (PFBA)**	**5.76**		**0**	ug/kg dry	0.274	EPA 537m	09/27/2021 16:30	WL
					Certifications:			09/30/2021 21:23	

Surrogate Recoveries	Result	Acceptance Range
Surrogate: M3PFBS	*89.4 %*	*25-150*
Surrogate: M5PFHxA	*88.1 %*	*25-150*
Surrogate: M4PFHpA	*54.7 %*	*25-150*
Surrogate: M3PFHxS	*83.4 %*	*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*83.0 %*	*25-150*
Surrogate: M6PFDA	*70.5 %*	*25-150*
Surrogate: M7PFUdA	*67.9 %*	*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*62.8 %*	*25-150*
Surrogate: M2PFTeDA	*54.9 %*	*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*109 %*	*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*78.9 %*	*25-150*
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*97.7 %*	*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*21.9 %*	*10-150*
Surrogate: d3-N-MeFOSAA	*77.8 %*	*25-150*
Surrogate: d5-N-EtFOSAA	*88.4 %*	*25-150*
Surrogate: M2-6:2 FTS	*145 %*	*25-200*
Surrogate: M2-8:2 FTS	*179 %*	*25-200*
Surrogate: M9PFNA	*86.3 %*	*25-150*

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Maximum Contaminant Level MCL	Units	Reported to LOQ	Reference Method	Date/Time Prep/Anal	Analyst
solids	*** % Solids**	**83.2**		**100**	%	0.100	SM 2540G	10/01/2021 16:59	TL
					Certifications:	CTDOH		10/01/2021 17:00	

Analytical Batch Summary

Batch ID: BI11448 **Preparation Method:** SPE PFAS Extraction-Soil-EPA 537m **Prepared By:** ER

YORK Sample ID	Client Sample ID	Preparation Date
21I1024-01	20B3 (0-2)	09/27/21
BI11448-BLK1	Blank	09/27/21
BI11448-BS1	LCS	09/27/21
BI11448-MS1	Matrix Spike	09/27/21
BI11448-MSD1	Matrix Spike Dup	09/27/21

Batch ID: BJ10064 **Preparation Method:** % Solids Prep **Prepared By:** TL

YORK Sample ID	Client Sample ID	Preparation Date
21I1024-01	20B3 (0-2)	10/01/21
BJ10064-DUP1	Duplicate	10/01/21

PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BI11448 - SPE PFAS Extraction-Soil-EPA 537m											
Blank (BI11448-BLK1)											Prepared: 09/27/2021 Analyzed: 09/30/2021
Perfluorobutanesulfonic acid (PFBS)	ND	0.218	ug/kg wet								
Perfluorohexanoic acid (PFHxA)	ND	0.218	"								
Perfluoroheptanoic acid (PFHpA)	ND	0.218	"								
Perfluorohexanesulfonic acid (PFHxS)	ND	0.218	"								
Perfluorooctanoic acid (PFOA)	ND	0.218	"								
Perfluorooctanesulfonic acid (PFOS)	ND	0.218	"								
Perfluorononanoic acid (PFNA)	ND	0.218	"								
Perfluorodecanoic acid (PFDA)	ND	0.218	"								
Perfluoroundecanoic acid (PFUnA)	ND	0.218	"								
Perfluorododecanoic acid (PFDoA)	ND	0.218	"								
Perfluorotridecanoic acid (PFTrDA)	ND	0.218	"								
Perfluorotetradecanoic acid (PFTA)	ND	0.218	"								
N-MeFOSAA	ND	0.218	"								
N-EtFOSAA	ND	0.218	"								
Perfluoropentanoic acid (PFPeA)	ND	0.218	"								
Perfluoro-1-octanesulfonamide (FOSA)	ND	0.218	"								
Perfluoro-1-heptanesulfonic acid (PFHpS)	ND	0.218	"								
Perfluoro-1-decanesulfonic acid (PFDS)	ND	0.218	"								
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND	0.218	"								
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND	0.218	"								
Perfluoro-n-butanoic acid (PFBA)	ND	0.218	"								
Surrogate: M3PFBS	*3.95*		"	*4.06*		*97.4*	*25-150*				
Surrogate: M5PFHxA	*4.16*		"	*4.37*		*95.3*	*25-150*				
Surrogate: M4PFHpA	*4.39*		"	*4.37*		*100*	*25-150*				
Surrogate: M3PFHxS	*3.92*		"	*4.13*		*95.0*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*4.08*		"	*4.37*		*93.3*	*25-150*				
Surrogate: M6PFDA	*4.00*		"	*4.37*		*91.5*	*25-150*				
Surrogate: M7PFUdA	*3.47*		"	*4.37*		*79.4*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*4.75*		"	*4.37*		*109*	*25-150*				
Surrogate: M2PFTeDA	*4.74*		"	*4.37*		*109*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*4.57*		"	*4.37*		*105*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*3.74*		"	*4.18*		*89.4*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*4.42*		"	*4.37*		*101*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*2.12*		"	*4.37*		*48.6*	*10-150*				
Surrogate: d3-N-MeFOSAA	*4.37*		"	*4.37*		*100*	*25-150*				
Surrogate: d5-N-EtFOSAA	*4.63*		"	*4.37*		*106*	*25-150*				
Surrogate: M2-6:2 FTS	*6.13*		"	*4.14*		*148*	*25-200*				
Surrogate: M2-8:2 FTS	*1.70*		"	*4.18*		*40.6*	*25-200*				
Surrogate: M9PFNA	*3.69*		"	*4.37*		*84.5*	*25-150*				

PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BI11448 - SPE PFAS Extraction-Soil-EPA 537m											
LCS (BI11448-BS1)								Prepared: 09/27/2021 Analyzed: 09/30/2021			
Perfluorobutanesulfonic acid (PFBS)	3.71	0.223	ug/kg wet	3.95		93.9	50-130				
Perfluorohexanoic acid (PFHxA)	4.32	0.223	"	4.46		96.8	50-130				
Perfluoroheptanoic acid (PFHpA)	3.88	0.223	"	4.46		86.9	50-130				
Perfluorohexanesulfonic acid (PFHxS)	3.77	0.223	"	4.07		92.7	50-130				
Perfluorooctanoic acid (PFOA)	4.12	0.223	"	4.46		92.3	50-130				
Perfluorooctanesulfonic acid (PFOS)	3.81	0.223	"	4.13		92.2	50-130				
Perfluorononanoic acid (PFNA)	4.10	0.223	"	4.46		91.8	50-130				
Perfluorodecanoic acid (PFDA)	3.77	0.223	"	4.46		84.4	50-130				
Perfluoroundecanoic acid (PFUnA)	3.92	0.223	"	4.46		87.9	50-130				
Perfluorododecanoic acid (PFDoA)	3.76	0.223	"	4.46		84.2	50-130				
Perfluorotridecanoic acid (PFTrDA)	3.17	0.223	"	4.46		70.9	50-130				
Perfluorotetradecanoic acid (PFTA)	4.07	0.223	"	4.46		91.2	50-130				
N-MeFOSAA	3.46	0.223	"	4.46		77.6	50-130				
N-EtFOSAA	3.86	0.223	"	4.46		86.6	50-130				
Perfluoropentanoic acid (PFPeA)	4.10	0.223	"	4.46		91.9	50-130				
Perfluoro-1-octanesulfonamide (FOSA)	4.32	0.223	"	4.46		96.7	50-130				
Perfluoro-1-heptanesulfonic acid (PFHpS)	3.68	0.223	"	4.24		86.7	50-130				
Perfluoro-1-decanesulfonic acid (PFDS)	3.05	0.223	"	4.31		70.8	50-130				
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	8.80	0.223	"	4.24		207	50-200	High Bias			
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	8.10	0.223	"	4.29		189	50-200				
Perfluoro-n-butanoic acid (PFBA)	4.15	0.223	"	4.46		92.9	50-130				
Surrogate: M3PFBS	*3.96*		"	*4.15*		*95.6*	*25-150*				
Surrogate: M5PFHxA	*4.26*		"	*4.46*		*95.5*	*25-150*				
Surrogate: M4PFHpA	*4.56*		"	*4.46*		*102*	*25-150*				
Surrogate: M3PFHxS	*3.97*		"	*4.22*		*93.9*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*4.19*		"	*4.46*		*93.8*	*25-150*				
Surrogate: M6PFDA	*4.36*		"	*4.46*		*97.8*	*25-150*				
Surrogate: M7PFUdA	*3.66*		"	*4.46*		*81.9*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*5.31*		"	*4.46*		*119*	*25-150*				
Surrogate: M2PFTeDA	*4.52*		"	*4.46*		*101*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*4.68*		"	*4.46*		*105*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*4.25*		"	*4.27*		*99.6*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*4.54*		"	*4.46*		*102*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*2.42*		"	*4.46*		*54.3*	*10-150*				
Surrogate: d3-N-MeFOSAA	*4.95*		"	*4.46*		*111*	*25-150*				
Surrogate: d5-N-EtFOSAA	*4.48*		"	*4.46*		*100*	*25-150*				
Surrogate: M2-6:2 FTS	*7.39*		"	*4.24*		*174*	*25-200*				
Surrogate: M2-8:2 FTS	*4.48*		"	*4.28*		*105*	*25-200*				
Surrogate: M9PFNA	*4.29*		"	*4.46*		*96.1*	*25-150*				

PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BI11448 - SPE PFAS Extraction-Soil-EPA 537m											
Matrix Spike (BI11448-MS1)	*Source sample: 21I0951-11 (Matrix Spike)							Prepared: 09/27/2021 Analyzed: 09/30/2021			
Perfluorobutanesulfonic acid (PFBS)	5.65	0.312	ug/kg dry	5.52	ND	102	25-150				
Perfluorohexanoic acid (PFHxA)	5.98	0.312	"	6.24	ND	95.9	25-150				
Perfluoroheptanoic acid (PFHpA)	5.48	0.312	"	6.24	ND	87.8	25-150				
Perfluorohexanesulfonic acid (PFHxS)	5.57	0.312	"	5.69	0.0547	96.8	25-150				
Perfluorooctanoic acid (PFOA)	6.28	0.312	"	6.24	0.319	95.5	25-150				
Perfluorooctanesulfonic acid (PFOS)	5.46	0.312	"	5.78	ND	94.5	25-150				
Perfluorononanoic acid (PFNA)	5.91	0.312	"	6.24	ND	94.8	25-150				
Perfluorodecanoic acid (PFDA)	9.11	0.312	"	6.24	ND	146	25-150				
Perfluoroundecanoic acid (PFUnA)	5.77	0.312	"	6.24	ND	92.4	25-150				
Perfluorododecanoic acid (PFDoA)	5.62	0.312	"	6.24	ND	90.0	25-150				
Perfluorotridecanoic acid (PFTrDA)	4.72	0.312	"	6.24	ND	75.6	25-150				
Perfluorotetradecanoic acid (PFTA)	5.77	0.312	"	6.24	ND	92.4	25-150				
N-MeFOSAA	5.46	0.312	"	6.24	ND	87.5	25-150				
N-EtFOSAA	5.42	0.312	"	6.24	ND	86.8	25-150				
Perfluoropentanoic acid (PFPeA)	6.05	0.312	"	6.24	ND	96.9	25-150				
Perfluoro-1-octanesulfonamide (FOSA)	6.42	0.312	"	6.24	ND	103	25-150				
Perfluoro-1-heptanesulfonic acid (PFHpS)	5.86	0.312	"	5.93	ND	98.9	25-150				
Perfluoro-1-decanesulfonic acid (PFDS)	3.90	0.312	"	6.02	ND	64.8	25-150				
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	12.1	0.312	"	5.93	ND	204	25-200	High Bias			
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	6.13	0.312	"	5.99	0.0334	102	25-200				
Perfluoro-n-butanoic acid (PFBA)	6.91	0.312	"	6.24	0.762	98.6	25-150				
Surrogate: M3PFBS	*5.30*		"	*5.80*		*91.4*	*25-150*				
Surrogate: M5PFHxA	*5.42*		"	*6.24*		*86.9*	*25-150*				
Surrogate: M4PFHpA	*6.00*		"	*6.24*		*96.1*	*25-150*				
Surrogate: M3PFHxS	*5.65*		"	*5.90*		*95.8*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*5.51*		"	*6.24*		*88.3*	*25-150*				
Surrogate: M6PFDA	*3.30*		"	*6.24*		*52.8*	*25-150*				
Surrogate: M7PFUdA	*4.48*		"	*6.24*		*71.7*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*5.58*		"	*6.24*		*89.4*	*25-150*				
Surrogate: M2PFTeDA	*5.06*		"	*6.24*		*81.2*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*5.89*		"	*6.24*		*94.5*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*5.38*		"	*5.97*		*90.1*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*5.68*		"	*6.24*		*91.0*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*2.51*		"	*6.24*		*40.3*	*10-150*				
Surrogate: d3-N-MeFOSAA	*5.97*		"	*6.24*		*95.6*	*25-150*				
Surrogate: d5-N-EtFOSAA	*6.58*		"	*6.24*		*105*	*25-150*				
Surrogate: M2-6:2 FTS	*9.43*		"	*5.92*		*159*	*25-200*				
Surrogate: M2-8:2 FTS	*7.83*		"	*5.98*		*131*	*25-200*				
Surrogate: M9PFNA	*5.25*		"	*6.24*		*84.1*	*25-150*				

PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc.

Batch BI11448 - SPE PFAS Extraction-Soil-EPA 537m

Matrix Spike Dup (BI11448-MSD1) *Source sample: 21I0951-11 (Matrix Spike Dup) Prepared: 09/27/2021 Analyzed: 09/30/2021

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Perfluorobutanesulfonic acid (PFBS)	4.28	0.253	ug/kg dry	4.48	ND	95.5	25-150		27.6	35	
Perfluorohexanoic acid (PFHxA)	4.57	0.253	"	5.06	ND	90.3	25-150		26.7	35	
Perfluoroheptanoic acid (PFHpA)	4.14	0.253	"	5.06	ND	81.8	25-150		27.8	35	
Perfluorohexanesulfonic acid (PFHxS)	5.17	0.253	"	4.62	0.0547	111	25-150		7.28	35	
Perfluorooctanoic acid (PFOA)	5.57	0.253	"	5.06	0.319	104	25-150		11.9	35	
Perfluorooctanesulfonic acid (PFOS)	4.83	0.253	"	4.69	0.0538	102	25-150		12.2	35	
Perfluorononanoic acid (PFNA)	4.17	0.253	"	5.06	ND	82.4	25-150		34.6	35	
Perfluorodecanoic acid (PFDA)	4.15	0.253	"	5.06	ND	81.9	25-150		74.9	35	Non-dir.
Perfluoroundecanoic acid (PFUnA)	4.51	0.253	"	5.06	ND	89.2	25-150		24.4	35	
Perfluorododecanoic acid (PFDoA)	4.20	0.253	"	5.06	ND	82.9	25-150		29.0	35	
Perfluorotridecanoic acid (PFTrDA)	3.80	0.253	"	5.06	ND	75.0	25-150		21.7	35	
Perfluorotetradecanoic acid (PFTA)	4.47	0.253	"	5.06	ND	88.3	25-150		25.3	35	
N-MeFOSAA	4.00	0.253	"	5.06	ND	79.0	25-150		30.8	35	
N-EtFOSAA	4.67	0.253	"	5.06	ND	92.1	25-150		14.9	35	
Perfluoropentanoic acid (PFPeA)	4.67	0.253	"	5.06	ND	92.2	25-150		25.7	35	
Perfluoro-1-octanesulfonamide (FOSA)	4.95	0.253	"	5.06	ND	97.8	25-150		25.9	35	
Perfluoro-1-heptanesulfonic acid (PFHpS)	4.60	0.253	"	4.81	ND	95.7	25-150		24.0	35	
Perfluoro-1-decanesulfonic acid (PFDS)	3.37	0.253	"	4.89	ND	68.9	25-150		14.6	35	
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	8.88	0.253	"	4.81	ND	185	25-200		30.7	35	
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	9.23	0.253	"	4.86	0.0334	189	25-200		40.4	35	Non-dir.
Perfluoro-n-butanoic acid (PFBA)	4.81	0.253	"	5.06	0.762	79.9	25-150		35.9	35	Non-dir.
Surrogate: M3PFBS	*4.46*		"	*4.70*		*94.8*	*25-150*				
Surrogate: M5PFHxA	*4.39*		"	*5.06*		*86.8*	*25-150*				
Surrogate: M4PFHpA	*4.90*		"	*5.06*		*96.7*	*25-150*				
Surrogate: M3PFHxS	*4.52*		"	*4.79*		*94.4*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*4.42*		"	*5.06*		*87.2*	*25-150*				
Surrogate: M6PFDA	*4.51*		"	*5.06*		*89.1*	*25-150*				
Surrogate: M7PFUdA	*3.59*		"	*5.06*		*70.9*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*4.63*		"	*5.06*		*91.4*	*25-150*				
Surrogate: M2PFTeDA	*4.52*		"	*5.06*		*89.2*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*4.96*		"	*5.06*		*98.0*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*4.21*		"	*4.85*		*87.0*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*4.52*		"	*5.06*		*89.2*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*2.11*		"	*5.06*		*41.7*	*10-150*				
Surrogate: d3-N-MeFOSAA	*5.11*		"	*5.06*		*101*	*25-150*				
Surrogate: d5-N-EtFOSAA	*5.07*		"	*5.06*		*100*	*25-150*				
Surrogate: M2-6:2 FTS	*7.29*		"	*4.81*		*152*	*25-200*				
Surrogate: M2-8:2 FTS	*5.61*		"	*4.85*		*116*	*25-200*				
Surrogate: M9PFNA	*4.66*		"	*5.06*		*92.1*	*25-150*				

Miscellaneous Physical Parameters - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ10064 - % Solids Prep											
Duplicate (BJ10064-DUP1)	*Source sample: 21I1024-01 (20B3 (0-2))								Prepared & Analyzed: 10/01/2021		
% Solids	81.6	0.100	%		83.2				1.94	20	

Sample and Data Qualifiers Relating to This Work Order

PF-LCS-H	The LCS recovery was slightly above acceptable limits for the qualified compound. However, sample results are not biased high because results are corrected for isotope recovery.
PFAS-MSH	The recovery for this matrix spike compound was above control limits possibly due to matrix effects or non-homogenieity of the sample verses the native sample

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.
MCL	This is the Maximum Contaminant Level in ng/L (ppt) establised by the NYSDOH for these compounds wheree an MCL is reported. Exceedences are flagged according.

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Field Chain-of-Custody Record

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization for YORK to proceed with the analyses requested below.
Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 21I1024

YOUR Information	Report To:	Invoice To:
Company: Brussee Environmental Corp.	Company: Brussee Environmental Corp.	Company: Brussee Environmental Corp.
Address: 14 Evans Lane Miller Place, NY 11764	Address: 14 Evans Lane Miller Place, New York 11764	Address: 14 Evans Lane Miller Place, New York 11764
Phone.: 631-338-1749	Phone.: 631-338-1749	Phone.: 631-338-1749
Contact: Kevin Brussee	Contact: Kevin Brussee	Contact: Kevin Brussee
E-mail: Kevinbrussee@hotmail.com	E-mail: KevinBrussee@hotmail.com	E-mail: KevinBrussee@hotmail.com

YOUR Project Number

YOUR Project Name
188 East 135th Street, Bronx, Ny

YOUR PO#:

Turn-Around Time
- RUSH - Next Day
- RUSH - Two Day
- RUSH - Three Day
- RUSH - Four Day
- **Standard (5-7 Day)** ✓

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Samples Collected by: (print your name above and sign below)

THOMAS FINNICAN

Matrix Codes
- S - soil / solid
- GW - groundwater
- DW - drinking water
- WW - wastewater
- O - Oil | Other

Samples From
- New York
- New Jersey
- Connecticut
- Pennsylvania
- Other

Report / EDD Type (circle selections)

Summary Report	CT RCP	Standard Excel EDD
QA Report	CT RCP DQA/DUE	EQuIS (Standard)
NY ASP A Package	NJDEP Reduced	NYSDEC EQuIS
NY ASP B Package	Deliverables	NJDEP SRP HazSite
	NJDKQP	Other:

YORK Reg. Comp.
Compared to the following Regulation(s): (please fill in)

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
20B3(0-2)	Soil	9/20/21	21 PFAS COMPOUNDS	1250PL

Comments:

Preservation: (check all that apply)
HCl ___ MeOH ___ HNO_3 ___ H_2SO_4 ___ NaOH ___ ZnAc ___ Ascorbic Acid ___ Other: NONE

Special Instruction
Field Filtered ____
Lab to Filter ____

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
BEC	9/21	1. KBarbrook	9/22/21 1PM	2.	9/22/21 1735
Samples Received by / Company	Date/Time	3. Samples Relinquished by / Company	Date/Time	3. Samples Received by / Company	Date/Time
Samples Relinquished by / Company	Date/Time	4. Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time / Temp. Received at Lab
				KBlock	9/22/21 1735 4.0 Degrees C