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October 10, 2023

RE: City of Hayward  
PFAS Investigation  
SEH No. HAYWA 171210 14.00

Linda Graham, LLC  
16297 W Nursery Road  
Hayward, WI 54843

Dear Linda Graham, LLC:

Please find enclosed a letter from the Wisconsin Department of Health and Human Services (DHS) summarizing the analytical results for a follow up groundwater sample collected from your private well on September 7, 2023.

Due to elevated levels of select per- and polyfluoroalkyl substance (PFAS) constituents measured in the June 5, 2023 sample collected from your private well, the Wisconsin Department of Natural Resources (WDNR) requested a follow up sample be collected. This correspondence is intended to serve as the notification of results from the requested follow up event.

Should you have any questions relating to the letter or results, please do not hesitate to contact me at 608.498.4844, or John Sager (WDNR) and/or Nathan Kloczko (DHS) at the respective locations referenced on the DHS letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian L. Kent".

Brian L. Kent, CHMM  
Project Manager

BLK/blk/BKO  
Enclosure

c: John Sager, WDNR  
Nathan Kloczko, DHS  
John McCue, Director of Public Works, Hayward, WI.

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Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 329 Jay Street, Suite 301, La Crosse, WI 54601-4034

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Tony Evers  
Governor



DIVISION OF PUBLIC HEALTH

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MADISON WI 53701-2659

Kirsten L. Johnson  
Secretary

**State of Wisconsin**  
Department of Health Services

Telephone: 608-266-1251  
Fax: 608-267-2832  
TTY: 711 or 800-947-3529

October 09, 2023

Ms. Linda Graham  
Linda Graham, LLC  
16297 W Nursery Road  
Hayward, WI 54843

**RE: Laboratory results for PFAS for the water sample collected from your residence at:  
10024 North Ogren Road, Hayward**

Dear Linda Graham, LLC,

Our agency, the Department of Health Services (DHS), recently received notice from the Department of Natural Resources (DNR) of well test results from your private drinking water well located at 10024 North Ogren Road, Hayward. In this letter, we will discuss PFAS levels tested for in your well. **The results show that one or more PFAS were found in your well, but not above a Wisconsin public health value. You can continue to use the water as you normally would, but you can still take action to reduce PFAS exposure.**

Actions you can take to reduce your exposure to PFAS include the following:

- Use an alternative source of water for drinking and preparing foods that take up a lot of water (like oatmeal, rice, or soup). This includes:
  - Filtered water from a pitcher, sink, or whole-house filter system with a certified filter technology. Our [Reducing PFAS in Your Drinking Water Brochure](http://www.dhs.wisconsin.gov/publications/p03012.pdf) <http://www.dhs.wisconsin.gov/publications/p03012.pdf> has information on appropriate devices.
  - Bottled water that has been purified or filtered.
  - Other sources of water that have been tested for PFAS and do not have levels above the public health values.
- Follow fish consumption advisories, vacuum frequently, and avoid consumer products that contain PFAS.

PFAS are a group of man-made chemicals that have been used in many products since the 1950s. Studies among people have shown that exposure to high levels of some PFAS can affect our health. Potential health issues include elevated cholesterol levels, decreased antibody response to certain vaccines, and reduced fertility in women. Additional health information about the health effects of PFAS can be found at [www.dhs.wisconsin.gov/chemical/pfas.htm](http://www.dhs.wisconsin.gov/chemical/pfas.htm).

You can contact DNR and DHS with questions about PFAS or the water sample results at the numbers provided below.

DNR John Sager  
DHS Nathan Kloczko

715-919-7239  
608-867-4448

[John.Sager@Wisconsin.gov](mailto:John.Sager@Wisconsin.gov)  
[Nathan.Kloczko@dhs.wisconsin.gov](mailto:Nathan.Kloczko@dhs.wisconsin.gov)

Sincerely,



Nathan Kloczko, MPH  
Site Evaluation Program Coordinator  
Bureau of Environmental and Occupational Health

<b>Substance</b>	<b>Result (ng/L)</b>	<b>Health value (ng/L)</b>	<b>Result above health value?</b>
PFOS	ND		
PFOA	<b>9.3</b>		
FOSA	ND		
NEtFOSA	ND		
NEtFOSAA	ND		
NEtFOSE	ND		
<b>Total of the six above:</b>	<b>9.3</b>	20*	no
PFNA	ND	30	no
PFHxS	<b>1.7</b>	40	no
HFPO-DA (GenX)	ND	300	no
PFDA	ND	300	no
PFDoA	ND	50	no
DONA	ND	3,000	no
PFUnA	ND	3,000	no
PFBA	<b>4.3</b>	10,000	no
PFTeA	ND	10,000	no
PFHxA	<b>1.5</b>	150,000	no
PFODA	ND	400,000	no
PFBS	<b>0.76</b>	450,000	no

ng/L = nanograms of substance per liter of water – equivalent to parts per trillion (ppt)

\*We recommend a combined health value of 20 ng/l for PFOS, PFOA, FOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

ND stands for “not detected.” This means that the compound may not be present in your water, or if it is present, it is at a level lower than what the lab can measure.

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Mr. Brian L. Kent  
Short Elliott Hendrickson, Inc. dba SEH  
10 North Bridge Street  
Chippewa Falls, Wisconsin 54729-3374

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**JOB DESCRIPTION**

Hayward LF

**JOB NUMBER**

500-239280-1

# Eurofins Chicago

## 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.

Results relate only to the items tested and the sample(s) as received by the laboratory. The results, detection limits (LOD) and Quantitation Limits (LOQ) have been adjusted for sample dilutions and/or solids content.

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 Chicago Project Manager.

## Authorization



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Authorized for release by  
Sandie Fredrick, Project Manager II  
[Sandra.Fredrick@et.eurofinsus.com](mailto:Sandra.Fredrick@et.eurofinsus.com)  
(920)261-1660



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# Case Narrative

Client: Short Elliott Hendrickson, Inc. dba SEH  
Project/Site: Hayward LF

Job ID: 500-239280-1

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**Job ID: 500-239280-1**

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**Laboratory: Eurofins Chicago**

## Narrative

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### Job Narrative 500-239280-1

#### Receipt

The sample was received on 9/8/2023 10:30 AM. 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 3.4° C.

#### LCMS

Method 537 (modified): The low laboratory control sample (LLCS) for preparation batch 320-707208 and analytical batch 320-707310 recovered outside control limits for the following analytes: NMeFOSE and NEtFOSE. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 537 (modified): The RPD of the low laboratory control sample (LLCS) and low laboratory control sample duplicate (LLCSD) for preparation batch 320-707208 and analytical batch 320-707310 recovered outside control limits for the following analytes: NMeFOSE and NEtFOSE.

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

#### Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-707208.

Method: PFC\_IDA\_WI

Matrix: Water

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

# Method Summary

Client: Short Elliott Hendrickson, Inc. dba SEH  
Project/Site: Hayward LF

Job ID: 500-239280-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	EET SAC
Field Sampling	Field Sampling	EPA	EET CHI
3535	Solid-Phase Extraction (SPE)	SW846	EET SAC

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

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

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



# Sample Summary

Client: Short Elliott Hendrickson, Inc. dba SEH  
Project/Site: Hayward LF

Job ID: 500-239280-1

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<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
500-239280-1	PW-2	Water	09/07/23 10:00	09/08/23 10:30

1

2

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# Client Sample Results

Client: Short Elliott Hendrickson, Inc. dba SEH  
Project/Site: Hayward LF

Job ID: 500-239280-1

**Client Sample ID: PW-2**  
**Date Collected: 09/07/23 10:00**  
**Date Received: 09/08/23 10:30**

**Lab Sample ID: 500-239280-1**  
**Matrix: Water**

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.3		4.2	2.0	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluoropentanoic acid (PFPeA)	2.3		1.7	0.41	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorohexanoic acid (PFHxA)	1.5	J	1.7	0.49	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluoroheptanoic acid (PFHpA)	1.4	J	1.7	0.21	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorooctanoic acid (PFOA)	9.3		1.7	0.72	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorononanoic acid (PFNA)	<0.23		1.7	0.23	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorodecanoic acid (PFDA)	<0.26		1.7	0.26	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluoroundecanoic acid (PFUnA)	<0.93		1.7	0.93	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorododecanoic acid (PFDoA)	<0.46		1.7	0.46	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorotridecanoic acid (PFTrDA)	<1.1		1.7	1.1	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorotetradecanoic acid (PFTeA)	<0.62		1.7	0.62	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.75		1.7	0.75	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.79		1.7	0.79	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorobutanesulfonic acid (PFBS)	0.76	J	1.7	0.17	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluoropentanesulfonic acid (PFPeS)	0.60	J	1.7	0.25	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorohexanesulfonic acid (PFHxS)	1.7		1.7	0.48	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.16		1.7	0.16	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorooctanesulfonic acid (PFOS)	<0.46		1.7	0.46	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorononanesulfonic acid (PFNS)	<0.31		1.7	0.31	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorodecanesulfonic acid (PFDS)	<0.27		1.7	0.27	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorododecanesulfonic acid (PFDoS)	<0.82		1.7	0.82	ng/L		09/18/23 20:00	09/20/23 00:37	1
Perfluorooctanesulfonamide (FOSA)	<0.83		1.7	0.83	ng/L		09/18/23 20:00	09/20/23 00:37	1
NEtFOSA	<0.74		1.7	0.74	ng/L		09/18/23 20:00	09/20/23 00:37	1
NMeFOSA	<0.36		1.7	0.36	ng/L		09/18/23 20:00	09/20/23 00:37	1
NMeFOSAA	<1.0		4.2	1.0	ng/L		09/18/23 20:00	09/20/23 00:37	1
NEtFOSAA	<1.1		4.2	1.1	ng/L		09/18/23 20:00	09/20/23 00:37	1
NMeFOSE	<1.2	*+ *1	3.4	1.2	ng/L		09/18/23 20:00	09/20/23 00:37	1
NEtFOSE	<0.72	*+ *1	1.7	0.72	ng/L		09/18/23 20:00	09/20/23 00:37	1
4:2 FTS	<0.20		1.7	0.20	ng/L		09/18/23 20:00	09/20/23 00:37	1
6:2 FTS	<2.1		4.2	2.1	ng/L		09/18/23 20:00	09/20/23 00:37	1
8:2 FTS	<0.39		1.7	0.39	ng/L		09/18/23 20:00	09/20/23 00:37	1
10:2 FTS	<0.57		1.7	0.57	ng/L		09/18/23 20:00	09/20/23 00:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.34		1.7	0.34	ng/L		09/18/23 20:00	09/20/23 00:37	1
HFPO-DA (GenX)	<1.3		3.4	1.3	ng/L		09/18/23 20:00	09/20/23 00:37	1
9Cl-PF3ONS	<0.20		1.7	0.20	ng/L		09/18/23 20:00	09/20/23 00:37	1
11Cl-PF3OUdS	<0.27		1.7	0.27	ng/L		09/18/23 20:00	09/20/23 00:37	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	93		25 - 150				09/18/23 20:00	09/20/23 00:37	1
13C5 PFPeA	86		25 - 150				09/18/23 20:00	09/20/23 00:37	1
13C2 PFHxA	99		25 - 150				09/18/23 20:00	09/20/23 00:37	1
13C4 PFHpA	94		25 - 150				09/18/23 20:00	09/20/23 00:37	1
13C4 PFOA	103		25 - 150				09/18/23 20:00	09/20/23 00:37	1
13C5 PFNA	97		25 - 150				09/18/23 20:00	09/20/23 00:37	1

Eurofins Chicago

# Client Sample Results

Client: Short Elliott Hendrickson, Inc. dba SEH  
 Project/Site: Hayward LF

Job ID: 500-239280-1

**Client Sample ID: PW-2**

**Lab Sample ID: 500-239280-1**

**Date Collected: 09/07/23 10:00**

**Matrix: Water**

**Date Received: 09/08/23 10:30**

**Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C2 PFDA	93		25 - 150	09/18/23 20:00	09/20/23 00:37	1
13C2 PFUnA	95		25 - 150	09/18/23 20:00	09/20/23 00:37	1
13C2 PFDoA	86		25 - 150	09/18/23 20:00	09/20/23 00:37	1
13C2 PFTeDA	86		25 - 150	09/18/23 20:00	09/20/23 00:37	1
13C2 PFHxDA	82		25 - 150	09/18/23 20:00	09/20/23 00:37	1
13C3 PFBS	94		25 - 150	09/18/23 20:00	09/20/23 00:37	1
18O2 PFHxS	98		25 - 150	09/18/23 20:00	09/20/23 00:37	1
13C4 PFOS	92		25 - 150	09/18/23 20:00	09/20/23 00:37	1
13C8 FOSA	104		10 - 150	09/18/23 20:00	09/20/23 00:37	1
d3-NMeFOSAA	96		25 - 150	09/18/23 20:00	09/20/23 00:37	1
d5-NEtFOSAA	101		25 - 150	09/18/23 20:00	09/20/23 00:37	1
d-N-MeFOSA-M	81		10 - 150	09/18/23 20:00	09/20/23 00:37	1
d-N-EtFOSA-M	85		10 - 150	09/18/23 20:00	09/20/23 00:37	1
d7-N-MeFOSE-M	98		10 - 150	09/18/23 20:00	09/20/23 00:37	1
d9-N-EtFOSE-M	92		10 - 150	09/18/23 20:00	09/20/23 00:37	1
M2-4:2 FTS	75		25 - 150	09/18/23 20:00	09/20/23 00:37	1
M2-6:2 FTS	70		25 - 150	09/18/23 20:00	09/20/23 00:37	1
M2-8:2 FTS	65		25 - 150	09/18/23 20:00	09/20/23 00:37	1
13C3 HFPO-DA	96		25 - 150	09/18/23 20:00	09/20/23 00:37	1
13C2 10:2 FTS	82		25 - 150	09/18/23 20:00	09/20/23 00:37	1

**Method: EPA Field Sampling - Field Sampling**

<b>Analyte</b>	<b>Result</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Unit</b>	<b>D</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<b>Field Conductivity</b>	<b>356</b>				umhos/cm			09/07/23 10:00	1
<b>Field pH</b>	<b>8.10</b>				SU			09/07/23 10:00	1
<b>Field Temperature</b>	<b>19.1</b>				Degrees C			09/07/23 10:00	1

# Definitions/Glossary

Client: Short Elliott Hendrickson, Inc. dba SEH  
Project/Site: Hayward LF

Job ID: 500-239280-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
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
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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: Short Elliott Hendrickson, Inc. dba SEH  
Project/Site: Hayward LF

Job ID: 500-239280-1

## LCMS

### Prep Batch: 707208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-239280-1	PW-2	Total/NA	Water	3535	
MB 320-707208/1-A	Method Blank	Total/NA	Water	3535	
LLCS 320-707208/2-A	Lab Control Sample	Total/NA	Water	3535	
LLCSD 320-707208/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

### Analysis Batch: 707310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-239280-1	PW-2	Total/NA	Water	537 (modified)	707208
MB 320-707208/1-A	Method Blank	Total/NA	Water	537 (modified)	707208
LLCS 320-707208/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	707208
LLCSD 320-707208/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	707208

## Field Service / Mobile Lab

### Analysis Batch: 731526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-239280-1	PW-2	Total/NA	Water	Field Sampling	

# QC Sample Results

Client: Short Elliott Hendrickson, Inc. dba SEH  
 Project/Site: Hayward LF

Job ID: 500-239280-1

## Method: 537 (modified) - Fluorinated Alkyl Substances

**Lab Sample ID: MB 320-707208/1-A**  
**Matrix: Water**  
**Analysis Batch: 707310**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 707208**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorotridecanoic acid (PFTrDA)	<1.3		2.0	1.3	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorotetradecanoic acid (PFTeA)	<0.73		2.0	0.73	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.89		2.0	0.89	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.94		2.0	0.94	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57		2.0	0.57	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.19		2.0	0.19	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorononanesulfonic acid (PFNS)	<0.37		2.0	0.37	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorododecanesulfonic acid (PFDoS)	<0.97		2.0	0.97	ng/L		09/18/23 20:00	09/19/23 19:39	1
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0	0.98	ng/L		09/18/23 20:00	09/19/23 19:39	1
NEtFOSA	<0.87		2.0	0.87	ng/L		09/18/23 20:00	09/19/23 19:39	1
NMeFOSA	<0.43		2.0	0.43	ng/L		09/18/23 20:00	09/19/23 19:39	1
NMeFOSAA	<1.2		5.0	1.2	ng/L		09/18/23 20:00	09/19/23 19:39	1
NEtFOSAA	<1.3		5.0	1.3	ng/L		09/18/23 20:00	09/19/23 19:39	1
NMeFOSE	<1.4		4.0	1.4	ng/L		09/18/23 20:00	09/19/23 19:39	1
NEtFOSE	<0.85		2.0	0.85	ng/L		09/18/23 20:00	09/19/23 19:39	1
4:2 FTS	<0.24		2.0	0.24	ng/L		09/18/23 20:00	09/19/23 19:39	1
6:2 FTS	<2.5		5.0	2.5	ng/L		09/18/23 20:00	09/19/23 19:39	1
8:2 FTS	<0.46		2.0	0.46	ng/L		09/18/23 20:00	09/19/23 19:39	1
10:2 FTS	<0.67		2.0	0.67	ng/L		09/18/23 20:00	09/19/23 19:39	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.40		2.0	0.40	ng/L		09/18/23 20:00	09/19/23 19:39	1
HFPO-DA (GenX)	<1.5		4.0	1.5	ng/L		09/18/23 20:00	09/19/23 19:39	1
9Cl-PF3ONS	<0.24		2.0	0.24	ng/L		09/18/23 20:00	09/19/23 19:39	1
11Cl-PF3OUdS	<0.32		2.0	0.32	ng/L		09/18/23 20:00	09/19/23 19:39	1
Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac			
	%Recovery	Qualifier							
13C4 PFBA	93		25 - 150	09/18/23 20:00	09/19/23 19:39	1			
13C5 PFPeA	84		25 - 150	09/18/23 20:00	09/19/23 19:39	1			
13C2 PFHxA	93		25 - 150	09/18/23 20:00	09/19/23 19:39	1			
13C4 PFHpA	105		25 - 150	09/18/23 20:00	09/19/23 19:39	1			
13C4 PFOA	106		25 - 150	09/18/23 20:00	09/19/23 19:39	1			
13C5 PFNA	101		25 - 150	09/18/23 20:00	09/19/23 19:39	1			

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# QC Sample Results

Client: Short Elliott Hendrickson, Inc. dba SEH  
 Project/Site: Hayward LF

Job ID: 500-239280-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: MB 320-707208/1-A**  
**Matrix: Water**  
**Analysis Batch: 707310**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 707208**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C2 PFDA	96		25 - 150	09/18/23 20:00	09/19/23 19:39	1
13C2 PFUnA	97		25 - 150	09/18/23 20:00	09/19/23 19:39	1
13C2 PFDoA	97		25 - 150	09/18/23 20:00	09/19/23 19:39	1
13C2 PFTeDA	84		25 - 150	09/18/23 20:00	09/19/23 19:39	1
13C2 PFHxDA	81		25 - 150	09/18/23 20:00	09/19/23 19:39	1
13C3 PFBS	94		25 - 150	09/18/23 20:00	09/19/23 19:39	1
18O2 PFHxS	97		25 - 150	09/18/23 20:00	09/19/23 19:39	1
13C4 PFOS	95		25 - 150	09/18/23 20:00	09/19/23 19:39	1
13C8 FOSA	100		10 - 150	09/18/23 20:00	09/19/23 19:39	1
d3-NMeFOSAA	97		25 - 150	09/18/23 20:00	09/19/23 19:39	1
d5-NEtFOSAA	96		25 - 150	09/18/23 20:00	09/19/23 19:39	1
d-N-MeFOSA-M	83		10 - 150	09/18/23 20:00	09/19/23 19:39	1
d-N-EtFOSA-M	89		10 - 150	09/18/23 20:00	09/19/23 19:39	1
d7-N-MeFOSE-M	98		10 - 150	09/18/23 20:00	09/19/23 19:39	1
d9-N-EtFOSE-M	96		10 - 150	09/18/23 20:00	09/19/23 19:39	1
M2-4:2 FTS	80		25 - 150	09/18/23 20:00	09/19/23 19:39	1
M2-6:2 FTS	77		25 - 150	09/18/23 20:00	09/19/23 19:39	1
M2-8:2 FTS	71		25 - 150	09/18/23 20:00	09/19/23 19:39	1
13C3 HFPO-DA	94		25 - 150	09/18/23 20:00	09/19/23 19:39	1
13C2 10:2 FTS	79		25 - 150	09/18/23 20:00	09/19/23 19:39	1

**Lab Sample ID: LLCS 320-707208/2-A**  
**Matrix: Water**  
**Analysis Batch: 707310**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 707208**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec	Limits
Perfluoropentanoic acid (PFPeA)	8.00	8.71		ng/L		109	50 - 150	
Perfluorohexanoic acid (PFHxA)	8.00	8.00		ng/L		100	50 - 150	
Perfluoroheptanoic acid (PFHpA)	8.00	8.26		ng/L		103	50 - 150	
Perfluorooctanoic acid (PFOA)	8.00	8.63		ng/L		108	50 - 150	
Perfluorononanoic acid (PFNA)	8.00	8.31		ng/L		104	50 - 150	
Perfluorodecanoic acid (PFDA)	8.00	8.03		ng/L		100	50 - 150	
Perfluoroundecanoic acid (PFUnA)	8.00	8.61		ng/L		108	50 - 150	
Perfluorododecanoic acid (PFDoA)	8.00	9.01		ng/L		113	50 - 150	
Perfluorotridecanoic acid (PFTTrDA)	8.00	8.45		ng/L		106	50 - 150	
Perfluorotetradecanoic acid (PFTeA)	8.00	8.55		ng/L		107	50 - 150	
Perfluoro-n-hexadecanoic acid (PFHxDA)	8.00	8.92		ng/L		111	50 - 150	
Perfluoro-n-octadecanoic acid (PFODA)	8.00	6.58		ng/L		82	50 - 150	
Perfluorobutanesulfonic acid (PFBS)	7.10	6.93		ng/L		98	50 - 150	
Perfluoropentanesulfonic acid (PFPeS)	7.52	7.92		ng/L		105	50 - 150	
Perfluorohexanesulfonic acid (PFHxS)	7.30	7.14		ng/L		98	50 - 150	

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# QC Sample Results

Client: Short Elliott Hendrickson, Inc. dba SEH  
 Project/Site: Hayward LF

Job ID: 500-239280-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LLCS 320-707208/2-A**  
**Matrix: Water**  
**Analysis Batch: 707310**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 707208**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	7.63	7.82		ng/L		102	50 - 150
Perfluorooctanesulfonic acid (PFOS)	7.44	7.48		ng/L		101	50 - 150
Perfluorononanesulfonic acid (PFNS)	7.70	7.61		ng/L		99	50 - 150
Perfluorodecanesulfonic acid (PFDS)	7.71	6.97		ng/L		90	50 - 150
Perfluorododecanesulfonic acid (PFDoS)	7.76	7.20		ng/L		93	50 - 150
Perfluorooctanesulfonamide (FOSA)	8.00	8.00		ng/L		100	50 - 150
NEtFOSA	8.00	8.07		ng/L		101	50 - 150
NMeFOSA	8.00	7.87		ng/L		98	50 - 150
NMeFOSAA	8.00	7.87		ng/L		98	50 - 150
NEtFOSAA	8.00	7.48		ng/L		94	50 - 150
NMeFOSE	8.00	12.9	*+	ng/L		161	50 - 150
NEtFOSE	8.00	12.3	*+	ng/L		153	50 - 150
4:2 FTS	7.50	7.54		ng/L		100	50 - 150
6:2 FTS	7.62	8.08		ng/L		106	50 - 150
8:2 FTS	7.68	8.01		ng/L		104	50 - 150
10:2 FTS	7.73	6.98		ng/L		90	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.57	8.31		ng/L		110	50 - 150
HFPO-DA (GenX)	8.00	8.29		ng/L		104	50 - 150
9Cl-PF3ONS	7.47	7.92		ng/L		106	50 - 150
11Cl-PF3OUdS	7.55	7.65		ng/L		101	50 - 150

Isotope Dilution	LLCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	92		25 - 150
13C5 PFPeA	82		25 - 150
13C2 PFHxA	97		25 - 150
13C4 PFHpA	97		25 - 150
13C4 PFOA	98		25 - 150
13C5 PFNA	100		25 - 150
13C2 PFDA	96		25 - 150
13C2 PFUnA	97		25 - 150
13C2 PFDoA	93		25 - 150
13C2 PFTeDA	91		25 - 150
13C2 PFHxDA	81		25 - 150
13C3 PFBS	92		25 - 150
18O2 PFHxS	96		25 - 150
13C4 PFOS	96		25 - 150
13C8 FOSA	100		10 - 150
d3-NMeFOSAA	99		25 - 150
d5-NEtFOSAA	103		25 - 150
d-N-MeFOSA-M	82		10 - 150
d-N-EtFOSA-M	85		10 - 150
d7-N-MeFOSE-M	112		10 - 150
d9-N-EtFOSE-M	109		10 - 150



# QC Sample Results

Client: Short Elliott Hendrickson, Inc. dba SEH  
 Project/Site: Hayward LF

Job ID: 500-239280-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LLCS 320-707208/2-A**  
**Matrix: Water**  
**Analysis Batch: 707310**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 707208**

Isotope Dilution	LLCS		Limits
	%Recovery	Qualifier	
M2-4:2 FTS	81		25 - 150
M2-6:2 FTS	74		25 - 150
M2-8:2 FTS	73		25 - 150
13C3 HFPO-DA	90		25 - 150
13C2 10:2 FTS	93		25 - 150

**Lab Sample ID: LLCSD 320-707208/3-A**  
**Matrix: Water**  
**Analysis Batch: 707310**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 707208**

Analyte	Spike Added	LLCSD Result	LLCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Perfluorobutanoic acid (PFBA)	8.00	8.67		ng/L		108	50 - 150	9	30	
Perfluoropentanoic acid (PFPeA)	8.00	9.74		ng/L		122	50 - 150	11	30	
Perfluorohexanoic acid (PFHxA)	8.00	8.93		ng/L		112	50 - 150	11	30	
Perfluoroheptanoic acid (PFHpA)	8.00	8.69		ng/L		109	50 - 150	5	30	
Perfluorooctanoic acid (PFOA)	8.00	9.12		ng/L		114	50 - 150	6	30	
Perfluorononanoic acid (PFNA)	8.00	8.96		ng/L		112	50 - 150	8	30	
Perfluorodecanoic acid (PFDA)	8.00	9.08		ng/L		113	50 - 150	12	30	
Perfluoroundecanoic acid (PFUnA)	8.00	8.94		ng/L		112	50 - 150	4	30	
Perfluorododecanoic acid (PFDoA)	8.00	9.91		ng/L		124	50 - 150	10	30	
Perfluorotridecanoic acid (PFTrDA)	8.00	8.70		ng/L		109	50 - 150	3	30	
Perfluorotetradecanoic acid (PFTeA)	8.00	8.75		ng/L		109	50 - 150	2	30	
Perfluoro-n-hexadecanoic acid (PFHxDA)	8.00	9.81		ng/L		123	50 - 150	9	30	
Perfluoro-n-octadecanoic acid (PFODA)	8.00	6.80		ng/L		85	50 - 150	3	30	
Perfluorobutanesulfonic acid (PFBS)	7.10	7.62		ng/L		107	50 - 150	9	30	
Perfluoropentanesulfonic acid (PFPeS)	7.52	8.55		ng/L		114	50 - 150	8	30	
Perfluorohexanesulfonic acid (PFHxS)	7.30	7.76		ng/L		106	50 - 150	8	30	
Perfluoroheptanesulfonic acid (PFHpS)	7.63	8.45		ng/L		111	50 - 150	8	30	
Perfluorooctanesulfonic acid (PFOS)	7.44	8.21		ng/L		110	50 - 150	9	30	
Perfluorononanesulfonic acid (PFNS)	7.70	8.43		ng/L		110	50 - 150	10	30	
Perfluorodecanesulfonic acid (PFDS)	7.71	7.96		ng/L		103	50 - 150	13	30	
Perfluorododecanesulfonic acid (PFDoS)	7.76	7.16		ng/L		92	50 - 150	0.6	30	
Perfluorooctanesulfonamide (FOSA)	8.00	8.38		ng/L		105	50 - 150	5	30	
NEtFOSA	8.00	8.71		ng/L		109	50 - 150	8	30	
NMeFOSA	8.00	9.19		ng/L		115	50 - 150	15	30	
NMeFOSAA	8.00	8.77		ng/L		110	50 - 150	11	30	
NEtFOSAA	8.00	8.41		ng/L		105	50 - 150	12	30	
NMeFOSE	8.00	8.59	*1	ng/L		107	50 - 150	40	30	

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# QC Sample Results

Client: Short Elliott Hendrickson, Inc. dba SEH  
 Project/Site: Hayward LF

Job ID: 500-239280-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LLCSD 320-707208/3-A**  
**Matrix: Water**  
**Analysis Batch: 707310**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 707208**

Analyte	Spike Added	LLCSD Result	LLCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
NEtFOSE	8.00	8.74	*1	ng/L		109	50 - 150	34	30
4:2 FTS	7.50	7.81		ng/L		104	50 - 150	4	30
6:2 FTS	7.62	8.81		ng/L		116	50 - 150	9	30
8:2 FTS	7.68	8.76		ng/L		114	50 - 150	9	30
10:2 FTS	7.73	8.36		ng/L		108	50 - 150	18	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.57	8.89		ng/L		117	50 - 150	7	30
HFPO-DA (GenX)	8.00	8.35		ng/L		104	50 - 150	0.6	30
9Cl-PF3ONS	7.47	8.22		ng/L		110	50 - 150	4	30
11Cl-PF3OUdS	7.55	7.68		ng/L		102	50 - 150	0.4	30

Isotope Dilution	LLCSD		Limits
	%Recovery	Qualifier	
13C4 PFBA	93		25 - 150
13C5 PFPeA	82		25 - 150
13C2 PFHxA	96		25 - 150
13C4 PFHpA	100		25 - 150
13C4 PFOA	101		25 - 150
13C5 PFNA	101		25 - 150
13C2 PFDA	97		25 - 150
13C2 PFUnA	101		25 - 150
13C2 PFDoA	94		25 - 150
13C2 PFTeDA	90		25 - 150
13C2 PFHxDA	83		25 - 150
13C3 PFBS	93		25 - 150
18O2 PFHxS	97		25 - 150
13C4 PFOS	96		25 - 150
13C8 FOSA	101		10 - 150
d3-NMeFOSAA	100		25 - 150
d5-NEtFOSAA	102		25 - 150
d-N-MeFOSA-M	82		10 - 150
d-N-EtFOSA-M	87		10 - 150
d7-N-MeFOSE-M	100		10 - 150
d9-N-EtFOSE-M	100		10 - 150
M2-4:2 FTS	82		25 - 150
M2-6:2 FTS	72		25 - 150
M2-8:2 FTS	70		25 - 150
13C3 HFPO-DA	94		25 - 150
13C2 10:2 FTS	78		25 - 150

# Lab Chronicle

Client: Short Elliott Hendrickson, Inc. dba SEH  
Project/Site: Hayward LF

Job ID: 500-239280-1

**Client Sample ID: PW-2**

**Lab Sample ID: 500-239280-1**

**Date Collected: 09/07/23 10:00**

**Matrix: Water**

**Date Received: 09/08/23 10:30**

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Prep	3535			707208	PV	EET SAC	09/18/23 20:00
Total/NA	Analysis	537 (modified)		1	707310	K1S	EET SAC	09/20/23 00:37
Total/NA	Analysis	Field Sampling		1	731526	SJF	EET CHI	09/07/23 10:00

**Laboratory References:**

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

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



# Accreditation/Certification Summary

Client: Short Elliott Hendrickson, Inc. dba SEH  
 Project/Site: Hayward LF

Job ID: 500-239280-1

## Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-24

## Laboratory: Eurofins Sacramento

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






Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-24
Arkansas DEQ	State	88-0691	05-18-24
California	State	2897	01-22-24
Colorado	State	CA0004	08-31-24
Florida	NELAP	E87570	06-30-24
Georgia	State	4040	01-29-24
Hawaii	State	<cert No.>	01-29-24
Illinois	NELAP	200060	03-17-24
Kansas	NELAP	E-10375	10-31-23
Louisiana (All)	NELAP	01944	06-30-24
Maine	State	CA00004	04-14-24
Michigan	State	9947	01-31-24
Nevada	State	CA00044	07-31-24
New Hampshire	NELAP	2997	04-18-24
New Jersey	NELAP	CA005	06-30-24
New York	NELAP	11666	04-01-24
Ohio	State	41252	01-29-24
Oregon	NELAP	4040	01-29-24
Texas	NELAP	T104704399-19-13	05-31-24
US Fish & Wildlife	US Federal Programs	58448	04-30-24
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442021-12	02-29-24
Virginia	NELAP	460278	03-14-24
Washington	State	C581	05-05-24
West Virginia (DW)	State	9930C	12-31-23
Wisconsin	State	998204680	08-31-24
Wyoming	State Program	8TMS-L	01-28-19 *

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

**Eurofins Chicago**

2417 Bond Street  
 University Park, IL 60484  
 Phone: 708-534-5200 Fax: 708-534-5211

**Chain of Custody Record**

eurofins |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 

<b>Client Information</b> Client Contact: Veronica Aranda Phone: 715 933 7332 E-Mail: Sandra.Fredrick@el.eurofins.com Company: Short Elliott Hendrickson, Inc. dba SEH		Lab PM: Fredrick Sandie E-Mail: Sandra.Fredrick@el.eurofins.com		Carrier Tracking No(s): State of Origin:		COC No: 500-118029-47689.1 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: Purchase Order not required WQ #: Project #: 50006595 SSO#:		Analysis Requested		Preservation Codes A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Amchlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other:		Preservation Codes M Hexane N None O AsNaO2 P Na2O4S Q Na2SO3 R Na2SO4 S H2SO4 T TSP Dodecalhydrate U Acetone V MCAA W PH 4-5 Y Trizma Z other (specify)	
Address: 10 North Bridge Street City: Chippewa Falls State/Zip: WI 54729-3374 Phone:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> PFC, PAH, PFAS, Standard List (36 Analytes) <input checked="" type="checkbox"/>		Total Number of Containers:		Special Instructions/Note:	
Email: varanda@sehinc.com Project Name: Hayward Landfill Site: PRIVATE WELLS		Sample Date: 9/17/23 Sample Time: 1000 Matrix: Water Sample Type (C=comp, G=grab): Preservation Code:		*BILL TO SEH		Special Instructions/Note:	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I II III IV Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Date/Time: 9/17/23		Method of Shipment:		Date/Time:	
Relinquished by: Veronica Aranda		Date/Time: 9/17/23		Received by: Sandra Fredrick		Date/Time: 09/08/23 1630	
Relinquished by:		Date/Time:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Received by:		Date/Time:	
Custody Seals Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Custody Seal No: 2307975		Cooler Temperature(s) °C and Other Remarks: 3 °C		Company: BETRAC	



Environment Testing

Sacramento  
Sample Receiving Notes

Loc 500  
239280

Tracking # 6578 9771 6682

Job \_\_\_\_\_

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
GSL / OnTrac / Goldstreak / USPS / Other \_\_\_\_\_

Use this form to record Sample Custody Seal Cooler Custody Seal Temperature & corrected Temperature & other observations.  
File in the job folder with the COC

Therm ID L00 Corr Factor (+/-) NA °C

Ice  Wet  Gel \_\_\_\_\_ Other \_\_\_\_\_

Cooler Custody Seal 2302925

Cooler ID \_\_\_\_\_

Temp Observed 3.4 °C Corrected 3.4 °C  
From Temp Blank  Sample

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cooler Temperature is acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frozen samples show signs of thaw?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initials DM Date 09/08/23

Unpacking/Labeling The Samples	Yes	No	NA
Containers are not broken or leaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
COC is complete w/o discrepancies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample custody seal?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample containers have legible labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample date/times are provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate containers are used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample bottles are completely filled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample preservatives verified?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is the Field Sampler's name on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples w/o discrepancies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Zero headspace?*	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Alkalinity has no headspace?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Perchlorate has headspace? (Methods 314, 331 6850)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Multiphasic samples are not present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials DM Date 09/08/23

Notes \_\_\_\_\_

Trizma Lot #(s) \_\_\_\_\_

Ammonium

Acetate Lot #(s) \_\_\_\_\_

Login Completion	Yes	No	NA
Receipt Temperature on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NCM Filed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Samples received within hold time?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Log Release checked in TALS?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initials DM Date 09/08/23



# Login Sample Receipt Checklist

Client: Short Elliott Hendrickson, Inc. dba SEH

Job Number: 500-239280-1

SDG Number:

**Login Number: 239280**

**List Number: 2**

**Creator: Morazzini, Dominic S**

**List Source: Eurofins Sacramento**

**List Creation: 09/08/23 03:49 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	2302925
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**SEH INC.  
FIELD SAMPLING REPORT**

Site Name: Hayward Landfill

Project: HAYW 171210

Sample Date: 06.05.2023 & 06/19/23  
& 09/07/23

Sample Collector(s): Veronica Aranda

Sample Sequence: June Annual MW VOCs and Gas Probe, PWs  
(June/September)

Page 3 of 4

Weather Conditions: Sunny 70°F/ 62F, Partly Sunny

Parameter Info./ I.D.	PW-1 850	PW-2 851	PW-2 (851)	PW-3 852	PW-6 853	PW-8 854	PW-9 855			
Sampling Time/Date	6/05/2023 @7:00	6/05/2023 @7:15	09/07/23 @10:00	Well not available	6/05/2023 @10:00	6/05/2023 @8:00	No response			
Temp. Deg. C.	13.1	14.3	19.1		20.1	14.0				
Cond. Corrected 25°	254	362	356		311	338				
pH	7.90	7.84	8.10		8.39	8.20				
Parameter Info./ I.D.	PW-10 856	PW-14 857	PW-15 858	PW-16 859	PW-17 860	PW-18 861	PW-19 862			
Sampling Time/Date	6/05/2023 @8:20	No response	6/05/2023 @16:00	No response	6/05/2023 @9:20	6/05/2023 @9:45	6/19/2023 @9:00			
Temp. Deg. C.	13.4		18.6		16.8	14.7	14.5			
Cond. Corrected 25°	255		502		258	216	225			
pH	7.09		7.63		7.76	7.96	7.85			





# Isotope Dilution Summary

Client: Short Elliott Hendrickson, Inc. dba SEH  
 Project/Site: Hayward LF

Job ID: 500-239280-1

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
500-239280-1	PW-2	93	86	99	94	103	97	93	95
LLCS 320-707208/2-A	Lab Control Sample	92	82	97	97	98	100	96	97
LLCSD 320-707208/3-A	Lab Control Sample Dup	93	82	96	100	101	101	97	101
MB 320-707208/1-A	Method Blank	93	84	93	105	106	101	96	97

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	PFHxDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (10-150)	d3NMFOS (25-150)
500-239280-1	PW-2	86	86	82	94	98	92	104	96
LLCS 320-707208/2-A	Lab Control Sample	93	91	81	92	96	96	100	99
LLCSD 320-707208/3-A	Lab Control Sample Dup	94	90	83	93	97	96	101	100
MB 320-707208/1-A	Method Blank	97	84	81	94	97	95	100	97

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	d5NEFOS (25-150)	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)
500-239280-1	PW-2	101	81	85	98	92	75	70	65
LLCS 320-707208/2-A	Lab Control Sample	103	82	85	112	109	81	74	73
LLCSD 320-707208/3-A	Lab Control Sample Dup	102	82	87	100	100	82	72	70
MB 320-707208/1-A	Method Blank	96	83	89	98	96	80	77	71

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HFPODA (25-150)	M102FTS (25-150)
500-239280-1	PW-2	96	82
LLCS 320-707208/2-A	Lab Control Sample	90	93
LLCSD 320-707208/3-A	Lab Control Sample Dup	94	78
MB 320-707208/1-A	Method Blank	94	79

#### Surrogate Legend

- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- PFHxA = 13C2 PFHxA
- C4PFHA = 13C4 PFHpA
- PFOA = 13C4 PFOA
- PFNA = 13C5 PFNA
- PFDA = 13C2 PFDA
- PFUnA = 13C2 PFUnA
- PFDoA = 13C2 PFDoA
- PFTDA = 13C2 PFTeDA
- PFHxDA = 13C2 PFHxDA
- C3PFBS = 13C3 PFBS
- PFHxS = 18O2 PFHxS
- PFOS = 13C4 PFOS
- PFOSA = 13C8 FOSA
- d3NMFOS = d3-NMeFOSAA
- d5NEFOS = d5-NEtFOSAA
- dMeFOSA = d-N-MeFOSA-M
- dEtFOSA = d-N-EtFOSA-M
- NMFM = d7-N-MeFOSE-M
- NEFM = d9-N-EtFOSE-M
- M242FTS = M2-4:2 FTS

# Isotope Dilution Summary

Client: Short Elliott Hendrickson, Inc. dba SEH

Job ID: 500-239280-1

Project/Site: Hayward LF

M262FTS = M2-6:2 FTS

M282FTS = M2-8:2 FTS

HFPODA = 13C3 HFPO-DA

M102FTS = 13C2 10:2 FTS

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15