



SGS Silver State Analytical Laboratories
3626 E. Sunset Road, Suite 100
Las Vegas, NV 89120
(702) 873-4478
www.ssalabs.com

March 05, 2025
Workorder 25020731

Randy Sharpe
H2 Analytics
2505 Anthem Village Dr Ste E385
Henderson, NV 89052

Project: H2A-25-0217-2

Dear Randy Sharpe:

It is the policy of SGS Silver State Analytical Laboratory - Las Vegas to strictly adhere to a comprehensive Quality Assurance Plan that ensures the data presented in this report are both accurate and precise. SGS Silver State Analytical Laboratory - Las Vegas maintains accreditation in the State of Nevada (NV-00930).

The data presented in this report was obtained from the analysis of samples received under a chain of custody. Unless otherwise noted below, samples were received in good condition, properly preserved and within hold time for the required analyses. Any anomalies associated with the analysis of the samples have been flagged in the Analytical Report with an appropriate explanation in the Definitions & Qualifiers.

25020731
SUB-PFAS has been Sub Contracted.

Sincerely,

A handwritten signature in black ink, appearing to read 'Carly Wood'. The signature is written in a cursive, flowing style.

Carly Wood
Laboratory Director
3626 E. Sunset Road, Suite 100
Las Vegas, NV 89120



SGS Silver State Analytical Laboratories
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Las Vegas, NV 89120
(702) 873-4478
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Analytical Report

Workorder#: 25020731
Date Reported: 3/5/2025

Client: H2 Analytics
Project Name: H2A-25-0217-2
PO #:

Sampled By: R Sharpe

Laboratory Accreditation Number: NV930/CA3029

Laboratory ID	Client Sample ID	Date/Time Sampled	Date Received
25020731-01	H2yunshen Brand X5 Hydrogen Water Bot	02/17/2025 10:45	2/18/2025

Parameter	Method	Result	Units	PQL	Analyst	Date/Time Analyzed	Data Flag
SUB	SUB	See Report		0	KK		



FINAL LAB REPORT

25020731

32500468

05-Mar-2025

Prepared by

SGS NORTH AMERICA

Prepared for

SGS Silver State Laboratories, Inc.

Kevin Kauffman

3626 East Sunset Road, Suite 1
Las Vegas, NV 89120
Phone: 702-873-4478
Email: Kevin.Kauffman@sgs.com

This report is approved by

Tamara Burkamper

tamara.burkamper@sgs.com

Senior Project Manager

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SGS CERTIFICATIONS

Alaska DEC LAP	17-012
Alaska DEC LCP	NC00919
Arkansas	88-0682
California (ELAP)	ELAP Cert #2914
CLIA	34D1013708
Colorado	NC00919
Connecticut	PH-0258
USDA Soil Permit	P330-20-00103
American Association for Laboratory Accreditation (A2LA)	2726.01 (ISO 17025:2017, 2009 TNI, DoD ELAP QSM 5.4)
Florida DOH	E87634
Hawaii DOH	Approval
Louisiana DEQ	4115
Louisiana DOH	LA031
Maine	2020020
Massachusetts	M-NC919
Michigan	9950
Minnesota (Primary NELAP For Method 23)	037-999-459
Montana	0106
New Hampshire (Secondary NELAP)	2083
New Jersey	NC100
New York	11685
North Carolina DEQ	481
Ohio	87785
Oklahoma	2205
Oregon	NC200002
Pennsylvania	68-03675
South Carolina	99029002
Texas	T104704260
UCMR 5	NC00919
US Coast Guard	16714/159.317/SGS
U.S. Fish and Wildlife Service	A22801
Vermont	VT-87634
Virginia	460214
Washington	C913

Rev. 16-Mar-2023

Laboratory Qualifiers

Report Definitions

DL	Method, Instrument, or Estimated Detection Limit per Analytical Method
CL	Control Limits for the recovery result of a parameter
LOQ	Reporting Limit
DF	Dilution Factor
RPD	Relative Percent Difference
LCS(D)	Laboratory Control Spike (Duplicate)
MS(D)	Matrix Spike (Duplicate)
MB	Method Blank

Qualifier Definitions

*	Recovery or RPD outside of control limits
A	Indicates reported result is above the established limit
B	Analyte was detected in the Lab Method Blank at a level above the LOQ
U	Undetected (Reported as ND or < DL)
J	Estimated Concentration.
E	Amount detected is greater than the Upper Calibration Limit
TIC	Tentatively Identified Compound
ND	Not Detected
P	RPD > 40% between results of dual columns
D	Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration range

Samples requiring manual integrations for various congeners and/or standards are marked and dated by the analyst. A code definition is provided below:

M1	Mis-identified peak
M2	Software did not integrate peak
M3	Incorrect baseline construction (i.e. not all of peak included; two peaks integrated as one)
M4	Pattern integration required (i.e. DRO, GRO, PCB, Toxaphene and Technical Chlordane)
M5	Other - Explained in case narrative

Note Results pages that include a value for "Solids (%)" have been adjusted for moisture content.

Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
H2yunshen Brand X5 Hydrogen Water Bottle	32500468001	02/17/2025 10:45	02/21/2025 12:15	Drinking Water

Detectable Results Summary

*** No Detectable Results ***

Parameter Cross Reference

REGULAR

<u>PARAMETER</u>	<u>CASNO</u>	<u>FULL_NAME</u>
11CI-PF3OUdS	763051-92-9	11-chloroeicosafiuoro-3-oxaundecane-1-sulfonic acid
9CI-PF3ONS	756426-58-1	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid
HFPO-DA (GenX)	13252-13-6	Hexafluoropropylene oxide dimer acid
NaDONA	919005-14-4	4,8-dioxa-3H-perfluorononanoic acid
NEtFOSAA	2991-50-6	N-ethyl perfluorooctanesulfonamidoacetic acid
NMeFOSAA	2355-31-9	N-methyl perfluorooctanesulfonamidoacetic acid
PFBS	375-73-5	Perfluorobutanesulfonic Acid
PFDA	335-76-2	Perfluorodecanoic acid
PFDoA	307-55-1	Perfluorododecanoic acid
PFHpA	375-85-9	Perfluoroheptanoic acid
PFHxA	307-24-4	Perfluorohexanoic acid
PFHxS	355-46-4	Perfluorohexanesulfonic Acid
PFNA	375-95-1	Perfluorononanoic acid
PFOA	335-67-1	Perfluorooctanoic acid
PFOS	1763-23-1	Perfluorooctanesulfonic Acid
PFTreA	376-06-7	Perfluorotetradecanoic acid
PFTriA	72629-94-8	Perfluorotridecanoic acid
PFuNA	2058-94-8	Perfluoroundecanoic acid

SURROGATE

<u>PARAMETER</u>	<u>CASNO</u>	<u>FULL_NAME</u>
13C2-PFDA	13CPFDA	13C2-PerFluorodecanoic Acid
13C2-PFHxA	13CPFHXA	13C2-Perfluoro-n-hexanoic Acid
13C3-HFPO-DA		13C3-HFPO-DA
d5-NEtFOSAA	1265205-97-7	d5-N-ethyl-perfluoro-1-octanesulfonamidoacetic

Results of H2yunshen Brand X5 Hydrogen Water Bottle

Client Sample ID: **H2yunshen Brand X5 Hydrogen Water Bottle**
 Client Project ID: **25020731**
 Lab Sample ID: 32500468001-C
 Lab Project ID: 32500468

Collection Date: 02/17/2025 10:45
 Received Date: 02/21/2025 12:15
 Matrix: Drinking Water

Results by EPA 537.1

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
NEtFOSAA	ND	U	0.772	1.81	ng/L	1	03/3/2025 22:30
NMeFOSAA	ND	U	0.705	1.81	ng/L	1	03/3/2025 22:30
PFBS	ND	U	0.569	1.81	ng/L	1	03/3/2025 22:30
PFDA	ND	U	0.570	1.81	ng/L	1	03/3/2025 22:30
PFDoA	ND	U	0.522	1.81	ng/L	1	03/3/2025 22:30
PFHpA	ND	U	0.562	1.81	ng/L	1	03/3/2025 22:30
PFHxA	ND	U	0.739	1.81	ng/L	1	03/3/2025 22:30
PFHxS	ND	U	0.803	1.81	ng/L	1	03/3/2025 22:30
PFNA	ND	U	0.612	1.81	ng/L	1	03/3/2025 22:30
PFOA	ND	U	0.589	1.81	ng/L	1	03/3/2025 22:30
PFOS	ND	U	0.915	1.81	ng/L	1	03/3/2025 22:30
PFTreA	ND	U	0.573	1.81	ng/L	1	03/3/2025 22:30
PFTriA	ND	U	0.589	1.81	ng/L	1	03/3/2025 22:30
PFuNA	ND	U	0.645	1.81	ng/L	1	03/3/2025 22:30
NaDONA	ND	U	0.621	1.81	ng/L	1	03/3/2025 22:30
9Cl-PF3ONS	ND	U	0.585	1.81	ng/L	1	03/3/2025 22:30
11Cl-PF3OUdS	ND	U	0.753	1.81	ng/L	1	03/3/2025 22:30
HFPO-DA (GenX)	ND	U	0.866	1.81	ng/L	1	03/3/2025 22:30
Surrogates							
13C2-PFDA	97.6			70.0-130	%	1	03/3/2025 22:30
13C2-PFHxA	101			70.0-130	%	1	03/3/2025 22:30
d5-NEtFOSAA	85.8			70.0-130	%	1	03/3/2025 22:30
13C3-HFPO-DA	90.5			70.0-130	%	1	03/3/2025 22:30

Batch Information

Analytical Batch: **XLC3439**
 Analytical Method: **EPA 537.1**
 Instrument: **TQS1**
 Analyst: **VS**
 Analytical Date/Time: **03/03/2025 22:30**

Prep Batch: **HXX5045**
 Prep Method: **EPA 537.1 Prep**
 Prep Date/Time: **02/24/2025 10:15**
 Prep Initial Wt./Vol.: **276 mL**
 Prep Extract Vol: **1 mL**

Batch Summary

Analytical Method: EPA 537.1

Prep Method: EPA 537.1 Prep

Prep Batch: HXX5045

Prep Date: 02/24/2025 10:15

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Analysis Date</u>	<u>Analytical Batch</u>	<u>Instrument</u>	<u>Analyst</u>
MB for HBN 170156 [HXX/5045]	295281	03/03/2025 21:16	XLC3439	TQS1	VS
LCS1 for HBN 170156 [HXX/5045]	295282	03/03/2025 21:31	XLC3439	TQS1	VS
Batch (295260MS1)	295283	03/03/2025 22:00	XLC3439	TQS1	VS
H2yunshen Brand ...(295262DUP)	295284	03/03/2025 22:44	XLC3439	TQS1	VS
H2yunshen Brand X5 Hydrogen Water Bottle	32500468001	03/03/2025 22:30	XLC3439	TQS1	VS

Method Blank

Blank ID: MB for HBN 170156 [HXX/5045]
 Blank Lab ID: 295281
 QC for Samples:
 32500468001

Matrix: Water

Results by EPA 537.1

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>DL</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>
NEtFOSAA	ND	U	0.852	2.00	ng/L	1
NMeFOSAA	ND	U	0.778	2.00	ng/L	1
PFBS	ND	U	0.628	2.00	ng/L	1
PFDA	ND	U	0.629	2.00	ng/L	1
PFDoA	ND	U	0.576	2.00	ng/L	1
PFHpA	ND	U	0.620	2.00	ng/L	1
PFHxA	ND	U	0.816	2.00	ng/L	1
PFHxS	ND	U	0.886	2.00	ng/L	1
PFNA	ND	U	0.676	2.00	ng/L	1
PFOA	ND	U	0.650	2.00	ng/L	1
PFOS	ND	U	1.01	2.00	ng/L	1
PFTreA	ND	U	0.633	2.00	ng/L	1
PFTriA	ND	U	0.650	2.00	ng/L	1
PFuNA	ND	U	0.712	2.00	ng/L	1
NaDONA	ND	U	0.686	2.00	ng/L	1
9Cl-PF3ONS	ND	U	0.646	2.00	ng/L	1
11Cl-PF3OUdS	ND	U	0.831	2.00	ng/L	1
HFPO-DA (GenX)	ND	U	0.956	2.00	ng/L	1
Surrogates						
13C2-PFDA	97.2			70.0-130	%	1
13C2-PFHxA	91.1			70.0-130	%	1
d5-NEtFOSAA	87.7			70.0-130	%	1
13C3-HFPO-DA	85.0			70.0-130	%	1

Batch Information

Analytical Batch: **XLC3439**
 Analytical Method: **EPA 537.1**
 Instrument: **TQS1**
 Analyst: **VS**
 Analytical Date/Time: **03/03/2025 21:16**
 Dilution: **1**

Prep Batch: **HXX5045**
 Prep Method: **EPA 537.1 Prep**
 Prep Date/Time: **02/24/2025 10:15**
 Prep Initial Wt./Vol.: **250 mL**
 Prep Extract Vol: **1 mL**
 QC CheckCode: **250303D23**

Blank Spike Summary

Blank Spike ID: LCS1 for HBN 170156 [HXX/5045]

Blank Spike Lab ID: 295282

Date Analyzed: 03/03/2025 21:31

QC for Samples: 32500468001

Matrix: Water

Results by EPA 537.1

Blank Spike (ng/L)

Parameter	Spike	Result	Rec (%)	CL
NEtFOSAA	2	2.32	116	50.0-150
NMeFOSAA	2	2.29	114	50.0-150
PFBS	1.78	1.61	90.2	50.0-150
PFDA	2	2.54	127	50.0-150
PFDoA	2	2.53	127	50.0-150
PFHpA	2	2.45	123	50.0-150
PFHxA	2	2.51	125	50.0-150
PFHxS	1.82	2.27	124	50.0-150
PFNA	2	2.34	117	50.0-150
PFOA	2	2.83	142	50.0-150
PFOS	1.86	2.25	121	50.0-150
PFTreA	2	2.46	123	50.0-150
PFTriA	2	2.63	132	50.0-150
PFuNA	2	2.54	127	50.0-150
NaDONA	1.9	2.33	123	50.0-150
9Cl-PF3ONS	1.86	2.13	115	50.0-150
11Cl-PF3OUdS	1.88	2.11	112	50.0-150
HFPO-DA (GenX)	2	2.05	103	50.0-150

Surrogates

13C2-PFDA			109	70.0-130
13C2-PFHxA			99.8	70.0-130
d5-NEtFOSAA			96.3	70.0-130
13C3-HFPO-DA			86.5	70.0-130

Batch Information

Analytical Batch: **XLC3439**

Analytical Method: **EPA 537.1**

Instrument: **TQS1**

Analyst: **VS**

Prep Batch: **HXX5045**

Prep Method: **EPA 537.1 Prep**

Prep Date/Time: **02/24/2025 10:15**

Spike Init Wt./Vol.: **250 mL** Extract Vol: **1 mL**

Dupe Init Wt./Vol.: Extract Vol:

Duplicate Sample Summary

Original Sample ID: 32500468001
 Duplicate Sample ID: 295284

Original Analysis Date: 03/03/2025 22:30
 Duplicate Analysis Date: 03/03/2025 22:44
 Matrix: Drinking Water

QC for Samples: 32500468001

Results by EPA 537.1

<u>PARAMETER</u>	<u>Original (ng/L)</u>	<u>Qual</u>	<u>Duplicate (ng/L)</u>	<u>Qual</u>	<u>RPD (%)</u>	<u>RPD CL</u>
NEtFOSAA	ND	U	ND	U		30.00
NMeFOSAA	ND	U	ND	U		30.00
PFBS	ND	U	ND	U		30.00
PFDA	ND	U	ND	U		30.00
PFDoA	ND	U	ND	U		30.00
PFHpA	ND	U	ND	U		30.00
PFHxA	ND	U	ND	U		30.00
PFHxS	ND	U	ND	U		30.00
PFNA	ND	U	ND	U		30.00
PFOA	ND	U	ND	U		30.00
PFOS	ND	U	ND	U		30.00
PFTreA	ND	U	ND	U		30.00
PFTriA	ND	U	ND	U		30.00
PFuNA	ND	U	ND	U		30.00
NaDONA	ND	U	ND	U		30.00
9Cl-PF3ONS	ND	U	ND	U		30.00
11Cl-PF3OUdS	ND	U	ND	U		30.00
HFPO-DA (GenX)	ND	U	ND	U		30.00
Surrogates						
13C2-PFDA	97.6		104		3.64	30.00
13C2-PFHxA	101		108		4.4	30.00
d5-NEtFOSAA	85.8		89.1		1.31	30.00
13C3-HFPO-DA	90.5		94.7		2.02	30.00

Batch Information

Original Analytical Batch: XLC3439
 Duplicate Analytical Batch: XLC3439
 Analytical Method: EPA 537.1
 Instrument: TQS1
 Analyst: VS

Prep Batch: HXX5045
 Prep Method: EPA 537.1 Prep
 Prep Date/Time: 02/24/2025 10:15



CHAIN OF CUSTODY RECORD

COC ID: 21341 PAGE: 1 OF: 1

ADDRESS: SGS Silver State Analytical Laboratories 3626 E. Sunset Road, Suite 100 Las Vegas, NV 89120 TEL: (702) 873-4478 FAX: Website: www.ssalabs.com

32500468

Main form containing contract details (SGS-Wilmington), address (5500 Business Drive), phone (910) 350-1557, and a table with columns for ITEM #, SAMPLE ID, Client Sample ID, Bottle Type, MATRIX, DATE COLLECTED, and NUMBER CONTAIN. Includes a section for SPECIAL INSTRUCTIONS and ANALYTICAL PARAMETERS.

Bottom section containing 'REPORT TRANSMITTAL DESIRED' options (HARDCOPY, FAX, EMAIL, ONLINE) and 'FOR LAB USE ONLY' section with fields for Temp of samples (7.8 °C), Attempt to Cool? (yes), and TAT options (Standard, RUSH).

32500468

111

ORIGIN ID: LASA (702) 873-4478
STEPHEN WEST
SILVER STATE ANALYTICAL LABORA
3626 E. SUNSET SUITE 100

SHIP DATE: 18FEB25
ACTWGT: 4.00 LB
CAD: 113979271/NET4820

LAS VEGAS, NV 89120
UNITED STATES US

BILL SENDER

TO **SAMPLE RECEIVING**
SGS NORTH AMERICA - WILMINGTON
5500 BUSINESS DR

4/2/12
12:15
7-80

59CJ426DEC6CA

WILMINGTON NC 28405

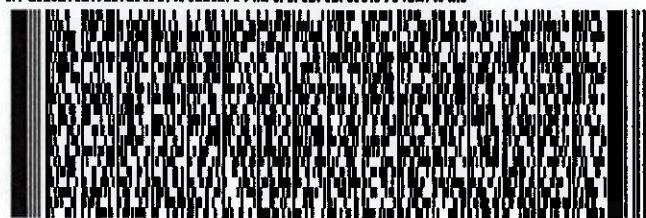
(910) 350-1903

REF:

NV:

PO:

DEPT:

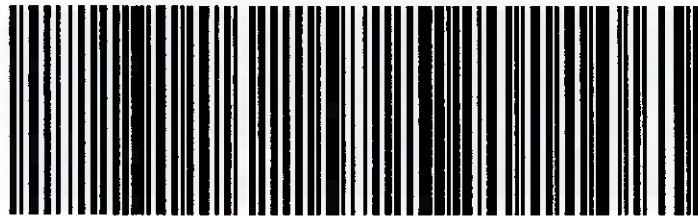


WED - 19 FEB 10:30A
PRIORITY OVERNIGHT

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SGS Silver State Analytical Laboratories
3626 E. Sunset Road, Suite 100
Las Vegas, NV 89120
(702) 873-4478
www.ssalabs.com

Definitions & Qualifiers

WO#: 25020731

Date: 3/5/2025

Definitions:

LCS: Laboratory Control Sample; prepared by adding a known mass of target analytes to a specified amount of de-ionized water and prepared with the batch of samples, used to calculate Accuracy (%REC).

LCSD: LCS Duplicate; used to calculate both Accuracy (%REC) and Precision (%RPD)

MBLK: Method Blank; a sample of similar matrix that is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedure, and in which no target analytes or interferences are present at concentrations that impact the analytical results for sample analyses.

MS: Matrix Spike; prepared by adding a known mass of target analytes to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available, used to calculate Accuracy (%REC)

MSD: Matrix Spike Duplicate; used to calculate both Accuracy (%REC) and Precision (%RPD)

RPD: Relative Percent Difference; comparison between sample and duplicate and/or MS and MSD.

PQL: Practical Quantitation Limit; the limit to which data is quantitated for reporting.

MDL: Method Detection Limit; the limit to which the instrument can reliably detect.

MCL: Maximum Contaminant Level; value set according to EPA guidelines.

TNTC: Too Numerous to Count; colony density is too thick to be individually counted or greater than method reporting requirements.

Qualifiers:

* - Analyte exceeds Safe Drinking Water Act MCL, does not meet drinking water standards.

- Laboratory not accredited for this analyte.

C - Analyte value below Safe Drinking Water Act MCL, does not meet drinking water standards.

B - Analyte found above the PQL in associated method blank.

G - Calibration blank analyte detected above PQL.

H - Sample analyzed beyond holding time for this parameter.

J - Estimated Value; Analyte found between MDL and PQL limits.

L - Sample concentration is at least 5 times greater than spike contribution. Spike recovery criteria do not apply.

R - RPD between sample and duplicate sample outside the RPD acceptance limits.

S - Batch MS and/or MSD were outside acceptance limits, batch LCS was acceptable.

W - Sample temperature when received was out of limit as specified by method.

Z - Batch LCS and/or LCSD were outside acceptance limits.