



BABCOCK Laboratories, Inc.

The Standard of Excellence for Over 100 Years

Client Name: King County Water District #90

Contact: Invoice

Address: 15606 SE 128th Street
Renton, WA 98059

Analytical Report: Page 1 of 22

Project Name: UCMR5 Laboratory Services

Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: C4I1373

Received on Ice (Y/N): Yes Temp: 4 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
C4I1373-01	WTP	Water	09/10/24 8:50	Bill McLane	09/11/24 11:30	FedEx
C4I1373-03	EP001	Water	09/10/24 8:00	Bill McLane	09/11/24 11:30	FedEx



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Address: 15606 SE 128th Street
Renton, WA 98059

Analytical Report: Page 2 of 22
Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: C4I1373
Received on Ice (Y/N): Yes Temp: 4 °C

Laboratory Reference Number

C4I1373-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
WTP	Water	09/10/24 08:50	09/11/24 11:30

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Per-/Polyfluorinated Alkyl Substances							
Perfluorobutanoic acid (PFBA)	ND	5.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluoropentanoic acid (PFPeA)	ND	3.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluorohexanoic Acid (PFHxA)	ND	3.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluoroheptanoic Acid (PFHpA)	ND	3.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluorooctanoic Acid (PFOA)	ND	4.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluorononanoic Acid (PFNA)	ND	4.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluorodecanoic Acid (PFDA)	ND	3.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluoroundecanoic Acid (PFUnA)	ND	2.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluorododecanoic Acid (PFDoDA)	ND	3.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluorobutanesulfonic Acid (PFBS)	ND	3.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluoropentanesulfonate (PFPeS)	ND	4.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluorohexanesulfonic Acid (PFHxS)	ND	3.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluoroheptanesulfonic acid (PFHpS)	ND	3.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluorooctanesulfonic Acid (PFOS)	ND	4.0	ng/L	EPA 533	10/02/24 18:35	AZP	
4:2 Fluorotelomer Sulfonate	ND	3.0	ng/L	EPA 533	10/02/24 18:35	AZP	
6:2 Fluorotelomer Sulfonate	ND	5.0	ng/L	EPA 533	10/02/24 18:35	AZP	
8:2 Fluorotelomer Sulfonate	ND	5.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	5.0	ng/L	EPA 533	10/02/24 18:35	AZP	
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	ND	3.0	ng/L	EPA 533	10/02/24 18:35	AZP	
9-chlorohexadecafluoro-3-oxanon e-1-sulfonic Acid	ND	2.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	20	ng/L	EPA 533	10/02/24 18:35	AZP	
11-chloroeicosafluoro 3oxaundecane-1-sulfonic Acid	ND	5.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	3.0	ng/L	EPA 533	10/02/24 18:35	AZP	



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Laboratory Reference Number

C4I1373-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
WTP	Water	09/10/24 08:50	09/11/24 11:30

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Per-/Polyfluorinated Alkyl Substances							
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	4.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	3.0	ng/L	EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C4-PFBA	96%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C5-PFPeA	91%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C5-PFHxA	102%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C4-PFHpA	94%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C8-PFOA	91%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C9-PFNA	89%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C6-PFDA	87%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C7-PFUnA	82%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C2-PFDoA	78%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C3-PFBS	102%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C3-PFHxS	100%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C8-PFOS	96%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C2-4:2 FTS	105%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C2-6:2 FTS	100%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C2-8:2 FTS	88%	50-200		EPA 533	10/02/24 18:35	AZP	
Surrogate: 13C3-HFPO-DA	87%	50-200		EPA 533	10/02/24 18:35	AZP	
Metals and Metalloids							
Lithium	ND	9.0	ug/L	EPA 200.7	09/18/24 13:01	ALD	
Perfluorinated Compounds by EPA 537.1							
N-EtFOSAA	ND	4.5	ng/L	EPA 537	09/19/24 16:00	VPO	
N-MeFOSAA	ND	5.5	ng/L	EPA 537	09/19/24 16:00	VPO	
Perfluorotridecanoic Acid (PFTrDA)	ND	6.4	ng/L	EPA 537	09/19/24 16:00	VPO	
Perfluorotetradecanoic Acid (PFTeDA)	ND	7.3	ng/L	EPA 537	09/19/24 16:00	VPO	



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Laboratory Reference Number

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<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
WTP	Water	09/10/24 08:50	09/11/24 11:30

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Perfluorinated Compounds by EPA 537.1							
Surrogate: 13C2-PFDA	89%	70-130		EPA 537	09/19/24 16:00	VPO	
Surrogate: 13C2-PFHxA	95%	70-130		EPA 537	09/19/24 16:00	VPO	
Surrogate: 13C3-HFPO-DA	89%	70-130		EPA 537	09/19/24 16:00	VPO	
Surrogate: N-EtFOSAA-D5	81%	70-130		EPA 537	09/19/24 16:00	VPO	



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Report Date: 04-Oct-2024

Work Order Number: C4I1373
Received on Ice (Y/N): Yes Temp: 4 °C

Laboratory Reference Number

C4I1373-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
EP001	Water	09/10/24 08:00	09/11/24 11:30

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Per-/Polyfluorinated Alkyl Substances							
Perfluorobutanoic acid (PFBA)	ND	5.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluoropentanoic acid (PFPeA)	ND	3.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluorohexanoic Acid (PFHxA)	ND	3.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluoroheptanoic Acid (PFHpA)	ND	3.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluorooctanoic Acid (PFOA)	ND	4.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluorononanoic Acid (PFNA)	ND	4.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluorodecanoic Acid (PFDA)	ND	3.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluoroundecanoic Acid (PFUnA)	ND	2.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluorododecanoic Acid (PFDoDA)	ND	3.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluorobutanesulfonic Acid (PFBS)	ND	3.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluoropentanesulfonate (PFPeS)	ND	4.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluorohexanesulfonic Acid (PFHxS)	ND	3.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluoroheptanesulfonic acid (PFHpS)	ND	3.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluorooctanesulfonic Acid (PFOS)	ND	4.0	ng/L	EPA 533	10/02/24 18:54	AZP	
4:2 Fluorotelomer Sulfonate	ND	3.0	ng/L	EPA 533	10/02/24 18:54	AZP	
6:2 Fluorotelomer Sulfonate	ND	5.0	ng/L	EPA 533	10/02/24 18:54	AZP	
8:2 Fluorotelomer Sulfonate	ND	5.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	5.0	ng/L	EPA 533	10/02/24 18:54	AZP	
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	ND	3.0	ng/L	EPA 533	10/02/24 18:54	AZP	
9-chlorohexadecafluoro-3-oxanon e-1-sulfonic Acid	ND	2.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	20	ng/L	EPA 533	10/02/24 18:54	AZP	
11-chloroeicosafluoro 3oxaundecane-1-sulfonic Acid	ND	5.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	3.0	ng/L	EPA 533	10/02/24 18:54	AZP	

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NELAP No. OR4035
LACSD No. 10119



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Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: C4I1373
Received on Ice (Y/N): Yes Temp: 4 °C

Laboratory Reference Number

C4I1373-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
EP001	Water	09/10/24 08:00	09/11/24 11:30

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Per-/Polyfluorinated Alkyl Substances							
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	4.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	3.0	ng/L	EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C4-PFBA	85%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C5-PFPeA	85%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C5-PFHxA	86%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C4-PFHpA	88%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C8-PFOA	86%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C9-PFNA	81%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C6-PFDA	69%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C7-PFUnA	62%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C2-PFDoA	55%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C3-PFBS	91%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C3-PFHxS	87%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C8-PFOS	85%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C2-4:2 FTS	95%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C2-6:2 FTS	87%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C2-8:2 FTS	69%	50-200		EPA 533	10/02/24 18:54	AZP	
Surrogate: 13C3-HFPO-DA	83%	50-200		EPA 533	10/02/24 18:54	AZP	
Metals and Metalloids							
Lithium	ND	9.0	ug/L	EPA 200.7	09/18/24 13:02	ALD	
Perfluorinated Compounds by EPA 537.1							
N-EtFOSAA	ND	5.0	ng/L	EPA 537	09/19/24 16:44	VPO	
N-MeFOSAA	ND	6.0	ng/L	EPA 537	09/19/24 16:44	VPO	
Perfluorotridecanoic Acid (PFTrDA)	ND	7.0	ng/L	EPA 537	09/19/24 16:44	VPO	
Perfluorotetradecanoic Acid (PFTeDA)	ND	8.0	ng/L	EPA 537	09/19/24 16:44	VPO	



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Analytical Report: Page 7 of 22
Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: **C4I1373**
Received on Ice (Y/N): Yes Temp: 4 °C

Laboratory Reference Number

C4I1373-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
EP001	Water	09/10/24 08:00	09/11/24 11:30

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Perfluorinated Compounds by EPA 537.1							
Surrogate: 13C2-PFDA	97%	70-130		EPA 537	09/19/24 16:44	VPO	
Surrogate: 13C2-PFHxA	107%	70-130		EPA 537	09/19/24 16:44	VPO	
Surrogate: 13C3-HFPO-DA	93%	70-130		EPA 537	09/19/24 16:44	VPO	
Surrogate: N-EtFOSAA-D5	88%	70-130		EPA 537	09/19/24 16:44	VPO	



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Analytical Report: Page 8 of 22
Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: **C411373**
Received on Ice (Y/N): Yes Temp: 4 °C

Per-/Polyfluorinated Alkyl Substances - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
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Batch 4127046 - SPE

Blank (4127046-BLK1)

Prepared: 09/27/24 Analyzed: 10/02/24

Perfluorobutanoic acid (PFBA)	ND	5.0	ng/L
Perfluoropentanoic acid (PFPeA)	ND	3.0	ng/L
Perfluorohexanoic Acid (PFHxA)	ND	3.0	ng/L
Perfluoroheptanoic Acid (PFHpA)	ND	3.0	ng/L
Perfluorooctanoic Acid (PFOA)	ND	4.0	ng/L
Perfluorononanoic Acid (PFNA)	ND	4.0	ng/L
Perfluorodecanoic Acid (PFDA)	ND	3.0	ng/L
Perfluoroundecanoic Acid (PFUnA)	ND	2.0	ng/L
Perfluorododecanoic Acid (PFDoDA)	ND	3.0	ng/L
Perfluorobutanesulfonic Acid (PFBS)	ND	3.0	ng/L
Perfluoropentanesulfonate (PFPeS)	ND	4.0	ng/L
Perfluorohexanesulfonic Acid (PFHxS)	ND	3.0	ng/L
Perfluoroheptanesulfonic acid (PFHpS)	ND	3.0	ng/L
Perfluorooctanesulfonic Acid (PFOS)	ND	4.0	ng/L
4:2 Fluorotelomer Sulfonate	ND	3.0	ng/L
6:2 Fluorotelomer Sulfonate	ND	5.0	ng/L
8:2 Fluorotelomer Sulfonate	ND	5.0	ng/L
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	5.0	ng/L
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	ND	3.0	ng/L
9-chlorohexadecafluoro-3-oxanone-1-sulfonic Acid	ND	2.0	ng/L
11-chloroeicosafluoro 3oxaundecane-1-sulfonic	ND	5.0	ng/L
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	20	ng/L
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	3.0	ng/L

mailing
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Riverside, CA 92502-0432

location
6100 Quail Valley Court
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CA ELAP No. 2698
EPA No. CA00102
NELAP No. OR4035
LACSD No. 10119



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Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: **C411373**
Received on Ice (Y/N): Yes Temp: 4 °C

Per-/Polyfluorinated Alkyl Substances - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
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Batch 4127046 - SPE

Blank (4127046-BLK1)

Prepared: 09/27/24 Analyzed: 10/02/24

Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	4.0	ng/L							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	3.0	ng/L							
Surrogate: 13C4-PFBA	18.2		ng/L	20.0		91	50-200			
Surrogate: 13C5-PFPeA	17.6		ng/L	20.0		88	50-200			
Surrogate: 13C5-PFHxA	18.8		ng/L	20.0		94	50-200			
Surrogate: 13C4-PFHpA	18.1		ng/L	20.0		91	50-200			
Surrogate: 13C8-PFOA	18.5		ng/L	20.0		92	50-200			
Surrogate: 13C9-PFNA	18.4		ng/L	20.0		92	50-200			
Surrogate: 13C6-PFDA	16.9		ng/L	20.0		84	50-200			
Surrogate: 13C7-PFUnA	15.6		ng/L	20.0		78	50-200			
Surrogate: 13C2-PFDoA	14.2		ng/L	20.0		71	50-200			
Surrogate: 13C3-PFBS	16.9		ng/L	18.6		91	50-200			
Surrogate: 13C3-PFHxS	17.1		ng/L	18.9		90	50-200			
Surrogate: 13C8-PFOS	16.9		ng/L	19.1		88	50-200			
Surrogate: 13C2-4:2 FTS	67.4		ng/L	74.8		90	50-200			
Surrogate: 13C2-6:2 FTS	68.9		ng/L	76.0		91	50-200			
Surrogate: 13C2-8:2 FTS	63.2		ng/L	76.8		82	50-200			
Surrogate: 13C3-HFPO-DA	18.0		ng/L	20.0		90	50-200			



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Report Date: 04-Oct-2024

Work Order Number: **C411373**
Received on Ice (Y/N): Yes Temp: 4 °C

Per-/Polyfluorinated Alkyl Substances - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4127046 - SPE										
LCS (4127046-BS1)										
Prepared: 09/27/24 Analyzed: 10/02/24										
Perfluorobutanoic acid (PFBA)	2.1	5.0	ng/L	2.00		106	50-150			
Perfluoropentanoic acid (PFPeA)	2.3	3.0	ng/L	2.00		116	50-150			
Perfluorohexanoic Acid (PFHxA)	1.8	3.0	ng/L	2.00		92	50-150			
Perfluoroheptanoic Acid (PFHpA)	1.9	3.0	ng/L	2.00		94	50-150			
Perfluorooctanoic Acid (PFOA)	2.4	4.0	ng/L	2.00		118	50-150			
Perfluorononanoic Acid (PFNA)	2.0	4.0	ng/L	2.00		102	50-150			
Perfluorodecanoic Acid (PFDA)	2.0	3.0	ng/L	2.00		100	50-150			
Perfluoroundecanoic Acid (PFUnA)	1.8	2.0	ng/L	2.00		90	50-150			
Perfluorododecanoic Acid (PFDoDA)	2.0	3.0	ng/L	2.00		101	50-150			
Perfluorobutanesulfonic Acid (PFBS)	2.5	3.0	ng/L	2.00		123	50-150			
Perfluoropentanesulfonate (PFPeS)	1.6	4.0	ng/L	2.00		82	50-150			
Perfluorohexanesulfonic Acid (PFHxS)	1.7	3.0	ng/L	2.00		84	50-150			
Perfluoroheptanesulfonic acid (PFHpS)	1.9	3.0	ng/L	2.00		95	50-150			
Perfluorooctanesulfonic Acid (PFOS)	1.3	4.0	ng/L	2.00		63	50-150			
4:2 Fluorotelomer Sulfonate	1.9	3.0	ng/L	2.00		97	50-150			
6:2 Fluorotelomer Sulfonate	2.3	5.0	ng/L	2.00		114	50-150			
8:2 Fluorotelomer Sulfonate	1.7	5.0	ng/L	2.00		84	50-150			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.0	5.0	ng/L	2.00		101	50-150			
4,8-dioxa-3H-perfluorononan oic Acid (ADONA)	1.9	3.0	ng/L	2.00		96	50-150			
9-chlorohexadecafluoro-3-ox anone-1-sulfonic Acid	1.8	2.0	ng/L	2.00		90	50-150			
11-chloroeicosafluoro 3oxaundecane-1-sulfonic	1.5	5.0	ng/L	2.00		73	50-150			
Nonafluoro-3,6-dioxaheptano ic acid (NFDHA)	1.8	20	ng/L	2.00		91	50-150			
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.0	3.0	ng/L	2.00		98	50-150			



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Client Name: King County Water District #90
Contact: Invoice
Address: 15606 SE 128th Street
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Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: **C411373**
Received on Ice (Y/N): Yes Temp: 4 °C

Per-/Polyfluorinated Alkyl Substances - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4127046 - SPE										
LCS (4127046-BS1)										
				Prepared: 09/27/24 Analyzed: 10/02/24						
Perfluoro-3-methoxypropanoic acid (PFMPA)	1.9	4.0	ng/L	2.00		97	50-150			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1.7	3.0	ng/L	2.00		86	50-150			
Surrogate: 13C4-PFBA	18.5		ng/L	20.0		93	50-200			
Surrogate: 13C5-PFPeA	17.9		ng/L	20.0		89	50-200			
Surrogate: 13C5-PFHxA	18.2		ng/L	20.0		91	50-200			
Surrogate: 13C4-PFHpA	18.3		ng/L	20.0		91	50-200			
Surrogate: 13C8-PFOA	18.1		ng/L	20.0		91	50-200			
Surrogate: 13C9-PFNA	18.2		ng/L	20.0		91	50-200			
Surrogate: 13C6-PFDA	18.1		ng/L	20.0		91	50-200			
Surrogate: 13C7-PFUnA	17.0		ng/L	20.0		85	50-200			
Surrogate: 13C2-PFDoA	15.4		ng/L	20.0		77	50-200			
Surrogate: 13C3-PFBS	18.9		ng/L	18.6		102	50-200			
Surrogate: 13C3-PFHxS	17.5		ng/L	18.9		93	50-200			
Surrogate: 13C8-PFOS	18.5		ng/L	19.1		97	50-200			
Surrogate: 13C2-4:2 FTS	74.2		ng/L	74.8		99	50-200			
Surrogate: 13C2-6:2 FTS	73.2		ng/L	76.0		96	50-200			
Surrogate: 13C2-8:2 FTS	70.7		ng/L	76.8		92	50-200			
Surrogate: 13C3-HFPO-DA	17.0		ng/L	20.0		85	50-200			



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Client Name: King County Water District #90
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Analytical Report: Page 12 of 22
Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: **C411373**
Received on Ice (Y/N): Yes Temp: 4 °C

Per-/Polyfluorinated Alkyl Substances - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4127046 - SPE										
Matrix Spike (4127046-MS1)		Source: C412353-01		Prepared: 09/27/24		Analyzed: 10/02/24				
Perfluorobutanoic acid (PFBA)	11	5.0	ng/L	10.2	ND	108	70-130			
Perfluoropentanoic acid (PFPeA)	12	3.0	ng/L	10.2	ND	113	70-130			
Perfluorohexanoic Acid (PFHxA)	11	3.0	ng/L	10.2	ND	110	70-130			
Perfluoroheptanoic Acid (PFHpA)	11	3.0	ng/L	10.2	ND	105	70-130			
Perfluorooctanoic Acid (PFOA)	11	4.0	ng/L	10.2	ND	110	70-130			
Perfluorononanoic Acid (PFNA)	11	4.0	ng/L	10.2	ND	109	70-130			
Perfluorodecanoic Acid (PFDA)	11	3.0	ng/L	10.2	ND	112	70-130			
Perfluoroundecanoic Acid (PFUnA)	13	2.0	ng/L	10.2	ND	124	70-130			
Perfluorobutanesulfonic Acid (PFBS)	12	3.0	ng/L	10.2	ND	122	70-130			
Perfluoropentanesulfonate (PFPeS)	12	4.0	ng/L	10.2	ND	116	70-130			
Perfluorohexanesulfonic Acid (PFHxS)	13	3.0	ng/L	10.2	ND	127	70-130			
Perfluoroheptanesulfonic acid (PFHpS)	12	3.0	ng/L	10.2	ND	114	70-130			
Perfluorooctanesulfonic Acid (PFOS)	12	4.0	ng/L	10.2	ND	114	70-130			
4:2 Fluorotelomer Sulfonate	12	3.0	ng/L	10.2	ND	118	70-130			
6:2 Fluorotelomer Sulfonate	12	5.0	ng/L	10.2	ND	115	70-130			
8:2 Fluorotelomer Sulfonate	11	5.0	ng/L	10.2	ND	112	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	11	5.0	ng/L	10.2	ND	105	70-130			
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	11	3.0	ng/L	10.2	ND	111	70-130			
9-chlorohexadecafluoro-3-oxanone-1-sulfonic Acid	12	2.0	ng/L	10.2	ND	114	70-130			
11-chloroeicosafluoro 3oxaundecane-1-sulfonic	9.5	5.0	ng/L	10.2	ND	93	70-130			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	52	20	ng/L	40.8	ND	127	70-130			
Perfluoro-4-methoxybutanoic acid (PFMBA)	11	3.0	ng/L	10.2	ND	108	70-130			
Perfluoro-3-methoxypropanoic acid (PFMPA)	12	4.0	ng/L	10.2	ND	117	70-130			

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LACSD No. 10119



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Client Name: King County Water District #90
Contact: Invoice
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Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
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Report Date: 04-Oct-2024

Work Order Number: C411373
Received on Ice (Y/N): Yes Temp: 4 °C

Per-/Polyfluorinated Alkyl Substances - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
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Batch 4127046 - SPE

Matrix Spike (4127046-MS1) Source: C412353-01 Prepared: 09/27/24 Analyzed: 10/02/24

Perfluoro(2-ethoxyethane)sulfonic acid (PFESA)	11	3.0	ng/L	10.2	ND	112	70-130			
Surrogate: 13C4-PFBA	18.5		ng/L	20.4		91	50-200			
Surrogate: 13C5-PFPeA	17.7		ng/L	20.4		87	50-200			
Surrogate: 13C5-PFHxA	17.8		ng/L	20.4		87	50-200			
Surrogate: 13C4-PFHpA	18.3		ng/L	20.4		90	50-200			
Surrogate: 13C8-PFOA	17.0		ng/L	20.4		83	50-200			
Surrogate: 13C9-PFNA	17.1		ng/L	20.4		84	50-200			
Surrogate: 13C6-PFDA	16.1		ng/L	20.4		79	50-200			
Surrogate: 13C7-PFUnA	14.4		ng/L	20.4		70	50-200			
Surrogate: 13C2-PFDoA	12.8		ng/L	20.4		63	50-200			
Surrogate: 13C3-PFBS	17.4		ng/L	19.0		92	50-200			
Surrogate: 13C3-PFHxS	17.2		ng/L	19.3		89	50-200			
Surrogate: 13C8-PFOS	16.2		ng/L	19.5		83	50-200			
Surrogate: 13C2-4:2 FTS	70.1		ng/L	76.3		92	50-200			
Surrogate: 13C2-6:2 FTS	67.5		ng/L	77.6		87	50-200			
Surrogate: 13C2-8:2 FTS	63.0		ng/L	78.4		80	50-200			
Surrogate: 13C3-HFPO-DA	17.7		ng/L	20.4		87	50-200			



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Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: **C411373**
Received on Ice (Y/N): Yes Temp: 4 °C

Per-/Polyfluorinated Alkyl Substances - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
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Batch 4127046 - SPE

Matrix Spike Dup (4127046-MSD1)

Source: C412353-01

Prepared: 09/27/24 Analyzed: 10/02/24

Perfluorobutanoic acid (PFBA)	10	5.0	ng/L	9.96	ND	103	70-130	7	30	
Perfluoropentanoic acid (PFPeA)	11	3.0	ng/L	9.96	ND	108	70-130	7	30	
Perfluorohexanoic Acid (PFHxA)	10	3.0	ng/L	9.96	ND	105	70-130	7	30	
Perfluoroheptanoic Acid (PFHpA)	10	3.0	ng/L	9.96	ND	103	70-130	4	30	
Perfluorooctanoic Acid (PFOA)	11	4.0	ng/L	9.96	ND	106	70-130	6	30	
Perfluorononanoic Acid (PFNA)	11	4.0	ng/L	9.96	ND	107	70-130	5	30	
Perfluorodecanoic Acid (PFDA)	11	3.0	ng/L	9.96	ND	114	70-130	0.9	30	
Perfluoroundecanoic Acid (PFUnA)	11	2.0	ng/L	9.96	ND	111	70-130	13	30	
Perfluorododecanoic Acid (PFDoDA)	12	3.0	ng/L	9.96	ND	121	70-130	14	30	
Perfluorobutanesulfonic Acid (PFBS)	12	3.0	ng/L	9.96	ND	123	70-130	2	30	
Perfluoropentanesulfonate (PFPeS)	11	4.0	ng/L	9.96	ND	114	70-130	4	30	
Perfluorohexanesulfonic Acid (PFHxS)	11	3.0	ng/L	9.96	ND	108	70-130	19	30	
Perfluoroheptanesulfonic acid (PFHpS)	10	3.0	ng/L	9.96	ND	103	70-130	13	30	
Perfluorooctanesulfonic Acid (PFOS)	9.7	4.0	ng/L	9.96	ND	97	70-130	19	30	
4:2 Fluorotelomer Sulfonate	11	3.0	ng/L	9.96	ND	114	70-130	6	30	
6:2 Fluorotelomer Sulfonate	11	5.0	ng/L	9.96	ND	110	70-130	8	30	
8:2 Fluorotelomer Sulfonate	9.3	5.0	ng/L	9.96	ND	94	70-130	20	30	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	9.8	5.0	ng/L	9.96	ND	99	70-130	9	30	
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	11	3.0	ng/L	9.96	ND	112	70-130	1	30	
9-chlorohexadecafluoro-3-oxanone-1-sulfonic Acid	11	2.0	ng/L	9.96	ND	107	70-130	9	30	
11-chloroeicosafluoro 3oxaundecane-1-sulfonic	8.5	5.0	ng/L	9.96	ND	86	70-130	11	30	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	48	20	ng/L	39.8	ND	121	70-130	7	30	
Perfluoro-4-methoxybutanoic acid (PFMBA)	11	3.0	ng/L	9.96	ND	107	70-130	3	30	

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LACSD No. 10119



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Client Name: King County Water District #90
Contact: Invoice
Address: 15606 SE 128th Street
Renton, WA 98059

Analytical Report: Page 15 of 22
Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: C411373
Received on Ice (Y/N): Yes Temp: 4 °C

Per-/Polyfluorinated Alkyl Substances - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
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Batch 4127046 - SPE

Matrix Spike Dup (4127046-MSD1) Source: C412353-01 Prepared: 09/27/24 Analyzed: 10/02/24

Perfluoro-3-methoxypropanoic acid (PFMPA)	11	4.0	ng/L	9.96	ND	114	70-130	6	30	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	11	3.0	ng/L	9.96	ND	114	70-130	0.8	30	
Surrogate: 13C4-PFBA	18.4		ng/L	19.9		92	50-200			
Surrogate: 13C5-PFPeA	17.4		ng/L	19.9		87	50-200			
Surrogate: 13C5-PFHxA	18.2		ng/L	19.9		91	50-200			
Surrogate: 13C4-PFHpA	17.8		ng/L	19.9		89	50-200			
Surrogate: 13C8-PFOA	17.0		ng/L	19.9		85	50-200			
Surrogate: 13C9-PFNA	16.2		ng/L	19.9		81	50-200			
Surrogate: 13C6-PFDA	15.1		ng/L	19.9		76	50-200			
Surrogate: 13C7-PFUnA	15.3		ng/L	19.9		77	50-200			
Surrogate: 13C2-PFDoA	14.0		ng/L	19.9		70	50-200			
Surrogate: 13C3-PFBS	16.5		ng/L	18.6		89	50-200			
Surrogate: 13C3-PFHxS	16.7		ng/L	18.8		89	50-200			
Surrogate: 13C8-PFOS	16.7		ng/L	19.0		88	50-200			
Surrogate: 13C2-4:2 FTS	68.4		ng/L	74.5		92	50-200			
Surrogate: 13C2-6:2 FTS	62.9		ng/L	75.7		83	50-200			
Surrogate: 13C2-8:2 FTS	64.5		ng/L	76.5		84	50-200			
Surrogate: 13C3-HFPO-DA	18.0		ng/L	19.9		90	50-200			



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Client Name: King County Water District #90
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Address: 15606 SE 128th Street
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Analytical Report: Page 16 of 22
Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: **C411373**
Received on Ice (Y/N): Yes Temp: 4 °C

Per-/Polyfluorinated Alkyl Substances - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4127046 - SPE										
Reference (4127046-SRM1)				Prepared: 09/27/24 Analyzed: 10/02/24						
Perfluorobutanoic acid (PFBA)	38.0	5.0	ng/L	40.0		95	70-130			
Perfluoropentanoic acid (PFPeA)	38.6	3.0	ng/L	40.0		97	70-130			
Perfluorohexanoic Acid (PFHxA)	39.1	3.0	ng/L	40.0		98	70-130			
Perfluoroheptanoic Acid (PFHpA)	38.9	3.0	ng/L	40.0		97	70-130			
Perfluorooctanoic Acid (PFOA)	39.6	4.0	ng/L	40.0		99	70-130			
Perfluorononanoic Acid (PFNA)	39.5	4.0	ng/L	40.0		99	70-130			
Perfluorodecanoic Acid (PFDA)	39.8	3.0	ng/L	40.0		99	70-130			
Perfluoroundecanoic Acid (PFUnA)	39.7	2.0	ng/L	40.0		99	70-130			
Perfluorododecanoic Acid (PFDoDA)	39.4	3.0	ng/L	40.0		99	70-130			
Perfluorobutanesulfonic Acid (PFBS)	42.5	3.0	ng/L	40.0		106	70-130			
Perfluoropentanesulfonate (PFPeS)	40.3	4.0	ng/L	40.0		101	70-130			
Perfluorohexanesulfonic Acid (PFHxS)	42.5	3.0	ng/L	40.0		106	70-130			
Perfluoroheptanesulfonic acid (PFHpS)	43.4	3.0	ng/L	40.0		109	70-130			
Perfluorooctanesulfonic Acid (PFOS)	39.1	4.0	ng/L	40.0		98	70-130			
4:2 Fluorotelomer Sulfonate	38.6	3.0	ng/L	40.0		97	70-130			
6:2 Fluorotelomer Sulfonate	35.7	5.0	ng/L	40.0		89	70-130			
8:2 Fluorotelomer Sulfonate	41.0	5.0	ng/L	40.0		102	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	38.2	5.0	ng/L	40.0		95	70-130			
4,8-dioxa-3H-perfluorononan oic Acid (ADONA)	38.6	3.0	ng/L	40.0		97	70-130			
9-chlorohexadecafluoro-3-ox anone-1-sulfonic Acid	41.3	2.0	ng/L	40.0		103	70-130			
Nonafluoro-3,6-dioxaheptano ic acid (NFDHA)	39.6	20	ng/L	40.0		99	70-130			
11-chloroeicosafluoro 3oxaundecane-1-sulfonic	38.9	5.0	ng/L	40.0		97	70-130			
Perfluoro-4-methoxybutanoic acid (PFMBA)	41.2	3.0	ng/L	40.0		103	70-130			

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Analytical Report: Page 17 of 22
Project Name: UCMR5 Laboratory Services
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Report Date: 04-Oct-2024

Work Order Number: **C411373**
Received on Ice (Y/N): Yes Temp: 4 °C

Per-/Polyfluorinated Alkyl Substances - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4127046 - SPE										
Reference (4127046-SRM1)				Prepared: 09/27/24 Analyzed: 10/02/24						
Perfluoro-3-methoxypropanoic acid (PFMPA)	39.6	4.0	ng/L	40.0		99	70-130			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	40.4	3.0	ng/L	40.0		101	70-130			
Surrogate: 13C4-PFBA	20.9		ng/L	20.0		105	70-130			
Surrogate: 13C5-PFPeA	20.5		ng/L	20.0		102	70-130			
Surrogate: 13C5-PFHxA	21.0		ng/L	20.0		105	70-130			
Surrogate: 13C4-PFHpA	20.4		ng/L	20.0		102	70-130			
Surrogate: 13C8-PFOA	20.7		ng/L	20.0		104	70-130			
Surrogate: 13C9-PFNA	20.9		ng/L	20.0		104	70-130			
Surrogate: 13C6-PFDA	20.8		ng/L	20.0		104	70-130			
Surrogate: 13C7-PFUnA	20.8		ng/L	20.0		104	70-130			
Surrogate: 13C2-PFDoA	20.3		ng/L	20.0		101	70-130			
Surrogate: 13C3-PFBS	19.3		ng/L	18.6		103	70-130			
Surrogate: 13C3-PFHxS	19.0		ng/L	18.9		101	70-130			
Surrogate: 13C8-PFOS	20.1		ng/L	19.1		105	70-130			
Surrogate: 13C2-4:2 FTS	76.0		ng/L	74.8		102	70-130			
Surrogate: 13C2-6:2 FTS	82.1		ng/L	76.0		108	70-130			
Surrogate: 13C2-8:2 FTS	76.6		ng/L	76.8		100	70-130			
Surrogate: 13C3-HFPO-DA	22.2		ng/L	20.0		111	70-130			



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Analytical Report: Page 18 of 22
Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: C4I1373
Received on Ice (Y/N): Yes Temp: 4 °C

Per-/Polyfluorinated Alkyl Substances - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
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Metals and Metalloids - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
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Batch 4I16026 - EPA 200.2

Blank (4I16026-BLK1)

Prepared: 09/16/24 Analyzed: 09/18/24

Lithium ND 9.0 ug/L

LCS (4I16026-BS1)

Prepared: 09/16/24 Analyzed: 09/18/24

Lithium 7.89 9.0 ug/L 9.00 88 50-150

Matrix Spike (4I16026-MS1)

Source: C4I1074-01

Prepared: 09/16/24 Analyzed: 09/18/24

Lithium 10.6 9.0 ug/L 9.00 ND 118 70-130

Matrix Spike Dup (4I16026-MSD1)

Source: C4I1074-01

Prepared: 09/16/24 Analyzed: 09/18/24

Lithium 10.5 9.0 ug/L 9.00 ND 116 70-130 0.9 20

Reference (4I16026-SRM1)

Prepared: 09/16/24 Analyzed: 09/18/24

Lithium 38.0 18 ug/L 40.0 95 0-200



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Client Name: King County Water District #90
Contact: Invoice
Address: 15606 SE 128th Street
Renton, WA 98059

Analytical Report: Page 19 of 22
Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: **C4I1373**
Received on Ice (Y/N): Yes Temp: 4 °C

Perfluorinated Compounds by EPA 537.1 - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4I16028 - SPE										
Blank (4I16028-BLK1)										
Prepared: 09/16/24 Analyzed: 09/19/24										
N-EtFOSAA	ND	5.0	ng/L							
N-MeFOSAA	ND	6.0	ng/L							
Perfluorotridecanoic Acid (PFTTrDA)	ND	7.0	ng/L							
Perfluorotetradecanoic Acid (PFTeDA)	ND	8.0	ng/L							
Surrogate: 13C2-PFDA	39.6		ng/L	40.0		99	70-130			
Surrogate: 13C2-PFHxA	41.8		ng/L	40.0		104	70-130			
Surrogate: 13C3-HFPO-DA	37.6		ng/L	40.0		94	70-130			
Surrogate: N-EtFOSAA-D5	40.5		ng/L	40.0		101	70-130			
LCS (4I16028-BS1)										
Prepared: 09/16/24 Analyzed: 09/19/24										
N-EtFOSAA	1.2	5.0	ng/L	2.00		61	50-150			
N-MeFOSAA	1.2	6.0	ng/L	2.00		60	50-150			
Perfluorotridecanoic Acid (PFTTrDA)	1.8	7.0	ng/L	2.00		89	50-150			
Perfluorotetradecanoic Acid (PFTeDA)	1.9	8.0	ng/L	2.00		94	50-150			
Surrogate: 13C2-PFDA	40.7		ng/L	40.0		102	70-130			
Surrogate: 13C2-PFHxA	40.2		ng/L	40.0		100	70-130			
Surrogate: 13C3-HFPO-DA	36.7		ng/L	40.0		92	70-130			
Surrogate: N-EtFOSAA-D5	39.8		ng/L	40.0		99	70-130			
Matrix Spike (4I16028-MS1)										
Source: C4I1739-01 Prepared: 09/16/24 Analyzed: 09/19/24										
N-EtFOSAA	18	4.5	ng/L	18.2	ND	99	50-150			
N-MeFOSAA	20	5.5	ng/L	18.2	ND	108	50-150			
Perfluorotridecanoic Acid (PFTTrDA)	18	6.4	ng/L	18.2	ND	99	50-150			
Perfluorotetradecanoic Acid (PFTeDA)	18	7.3	ng/L	18.2	ND	100	50-150			
Surrogate: 13C2-PFDA	37.8		ng/L	36.4		104	70-130			
Surrogate: 13C2-PFHxA	39.2		ng/L	36.4		108	70-130			
Surrogate: 13C3-HFPO-DA	38.1		ng/L	36.4		105	70-130			
Surrogate: N-EtFOSAA-D5	35.1		ng/L	36.4		97	70-130			



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Client Name: King County Water District #90
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Analytical Report: Page 20 of 22
Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: C4I1373
Received on Ice (Y/N): Yes Temp: 4 °C

Perfluorinated Compounds by EPA 537.1 - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4I16028 - SPE										
Matrix Spike Dup (4I16028-MSD1)			Source: C4I1739-01		Prepared: 09/16/24		Analyzed: 09/19/24			
N-EtFOSAA	17	4.4	ng/L	17.7	ND	93	50-150	6	50	
N-MeFOSAA	17	5.3	ng/L	17.7	ND	94	50-150	13	50	
Perfluorotridecanoic Acid (PFTrDA)	16	6.2	ng/L	17.7	ND	92	50-150	7	50	
Perfluorotetradecanoic Acid (PFTeDA)	17	7.1	ng/L	17.7	ND	96	50-150	5	50	
Surrogate: 13C2-PFDA	37.2		ng/L	35.5		105	70-130			
Surrogate: 13C2-PFHxA	37.7		ng/L	35.5		106	70-130			
Surrogate: 13C3-HFPO-DA	32.6		ng/L	35.5		92	70-130			
Surrogate: N-EtFOSAA-D5	32.9		ng/L	35.5		93	70-130			
Reference (4I16028-SRM1)					Prepared: 09/16/24		Analyzed: 09/19/24			
N-EtFOSAA	20.6	5.0	ng/L	20.0		103	0-200			
N-MeFOSAA	20.4	6.0	ng/L	20.0		102	0-200			
Perfluorotridecanoic Acid (PFTrDA)	17.8	7.0	ng/L	20.0		89	0-200			
Perfluorotetradecanoic Acid (PFTeDA)	21.6	8.0	ng/L	20.0		108	0-200			
Surrogate: 13C2-PFDA	41.1		ng/L	40.0		103	70-130			
Surrogate: 13C2-PFHxA	40.7		ng/L	40.0		102	70-130			
Surrogate: 13C3-HFPO-DA	40.4		ng/L	40.0		101	70-130			
Surrogate: N-EtFOSAA-D5	42.0		ng/L	40.0		105	70-130			



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Client Name: King County Water District #90
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Address: 15606 SE 128th Street
Renton, WA 98059

Analytical Report: Page 21 of 22
Project Name: UCMR5 Laboratory Services
Project Number: UCMR5 Laboratory Services
Quote

Report Date: 04-Oct-2024

Work Order Number: C411373
Received on Ice (Y/N): Yes Temp: 4 °C

Notes and Definitions

ND: Analyte NOT DETECTED at or above the Method Detection Limit (**if MDL is reported**), otherwise at or above the Reportable Detection Limit (RDL)
NR: Not Reported
RDL: Reportable Detection Limit
MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

Julieta Machuca For Alexandria L. Guerra

cc:

E-STANDARD.RPT

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EPA No. CA00102
NELAP No. OR4035
LACSD No. 10119

Chain of Custody & Sample Information Record



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(951) 653-3351 www.babcocklabs.com

UCMR5

Client: KING COUNTY WATER DISTRICT NO 90

Contact: Bill McLane **Phone Number:** (425) 255-9600

PWS ID Code: WA5341150

Sampler Information				Analysis, Preservatives, and # Containers							Notes		
Name: Bill McLane Employer: King County Water District #90 Signature:				EPA 200.7 Metals (HNO3) 125mL plastic bottle	EPA 533 Semivolatiles PFAS (Ammonium Acetate) 240mL Polypropylene bottles - Polypropylene caps	EPA 537.1 Semivolatiles (Trizma) 240mL Polypropylene bottles - Polypropylene caps	Field Blank EPA 533 Semivolatiles PFAS (Ammonium Acetate) 240mL Polypropylene bottles - Polypropylene caps	Field Blank EPA 537.1 Semivolatiles (Trizma) 240mL Polypropylene bottles - Polypropylene caps	Additional Containers for:		Total # of Containers	Monitoring Requirement: Entry Point	
MS/MSD 533		MS/MSD 537											
Facility ID	Sample Point ID	Date	Time									Sample Event	Sampling Point Name
02441	WTP	9-10-24	8:50am	1	2	2	1	1			7	SE1	Water Treatment Facility
17277	EP001	9-10-24	8:00am	1	2	2	1	1			7	SE1	Entry Point to Dist. System
Relinquished By (sign)		Print Name & Company		Date & Time			Received By (sign)			Print Name & Company			
		Bill McLane/KCWD90		9-10-24 10:05 AM						Bill McLane/KCWD90			
		Bill McLane/KCWD90		9-10-24 10:05 AM						Bill McLane/KCWD90			

(FOR LAB USE ONLY)		Sample Integrity Upon Receipt	
Proper Sample Volume?	Yes No	Temperature Requirement Met?	Yes No
Proper Sample Container?	Yes No	Submitted Same Day?	Yes No
Proper Preservative(s)?	Yes No	Rec'd Next Day - 48 Hours	Yes No
Submitted within Holding Times?	Yes No	Sampled > 48 Hours	Yes No
Samples Submitted on Ice?	Yes No	If > 48 hrs, Stored at < 10 C prior to shipment?	Yes No
		Samples meet all Acceptance Criteria?	Yes No

Lab No. /ES17

C4I1373

Rec'd: 09/11/2024 11:30

OZO

