SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

CLIENT # S061
REPORT # 23-451

SUBMITTED BY:
CHESTER LabNet
12242 S.W. GARDEN PLACE
TIGARD, OR 97223
(503)624-2183/FAX (503)624-2653
www.ChesterLab.Net

CHESTER LabNet

12242 SW Garden Place ❖ Tigard, OR 97223-8246 ❖ USA
Telephone 503-624-2183 ❖ Fax 503-624-2653 ❖ www.chesterlab.net

Case Narrative

Date: September 29, 2023

General Information

Client:	Sacramento Metropolitan Air Quality Management District
Client Number:	S061
Report Number:	23-451
Sample Description:	47mm Teflon Filters, 47mm Quartz Filters
Sample Numbers:	23-T2085 – 23-T2087, 23-T2149 – 23-T2151

Analysis

Analytes:	Particulate Mass, XRF Metals (Na – Pb), Cl, NO3, SO4, Na, NH4, K, Organic Carbon, Elemental Carbon
Analytical Protocols:	Gravimetry: 40 CFR 50 Appendix L (10/17/06 version) X-Ray Fluorescence: EPA IO-3.3 (June 1999 version) Anions - EPA 300.0 (revision 2.1) Cations - ASTM D6919-17 OC/EC: Modified IMPROVE-A (revision 1, 1/25/16)
Analytical Notes:	No problems were encountered during the analyses. Results have **not** been blank corrected.
QA/QC Review:	All the data have been reviewed by the analysts performing the analyses and the project manager. All the quality control and sample-specific information in this package is complete and meets or exceeds t. minimum requirements for acceptability.
Comments:	If you have any questions or concerns regarding this analysis, please feel free to contact the project manager.
Disclaimer:	This report shall not be reproduced, except in full, without the written approval of the laboratory. The results only represent that of the samples as received into the laboratory.

Paul Duda 9/29/23

Project Manager Date
Paul Duda

Client: S061 - SMAQMD
Report Number: 23-451

Lab ID: 23-T2085
Filter ID: P7469189
Client ID: Canister SMAQMD 01_02
Site: 617Fern
Sample Date: 8/10/23
Filter Lot #: 7118468
Volume: 9.703 ± 0.485 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter			percent			µg/m³		
Gravimetry									
Net Mass	44.	±	10.				4.535	±	1.055
XRF									
* Na	0.4848	±	0.3232	1.102	±	0.7760	0.0500	±	0.0334
* Mg	0.0859	±	0.0599	0.1952	±	0.1432	0.0089	±	0.0062
Al	0.2723	±	0.0814	0.6189	±	0.2323	0.0281	±	0.0085
Si	0.5865	±	0.0339	1.333	±	0.3126	0.0604	±	0.0046
* P	0.0011	±	0.0136	0.0026	±	0.0308	0.0001	±	0.0014
S	2.676	±	0.1390	6.081	±	1.418	0.2758	±	0.0199
* Cl	0.0339	±	0.0362	0.0770	±	0.0840	0.0035	±	0.0037
K	0.1401	±	0.0170	0.3185	±	0.0820	0.0144	±	0.0019
Ca	0.1209	±	0.0158	0.2748	±	0.0721	0.0125	±	0.0017
* Sc	0.0000	±	0.0124	0.0000	±	0.0282	0.0000	±	0.0013
Ti	0.0305	±	0.0102	0.0693	±	0.0280	0.0031	±	0.0011
* V	0.0000	±	0.0102	0.0000	±	0.0231	0.0000	±	0.0010
Cr	0.0633	±	0.0102	0.1438	±	0.0400	0.0065	±	0.0011
* Mn	0.0079	±	0.0090	0.0180	±	0.0209	0.0008	±	0.0009
Fe	0.2633	±	0.0158	0.5984	±	0.1407	0.0271	±	0.0021
* Co	0.0000	±	0.0079	0.0000	±	0.0180	0.0000	±	0.0008
* Ni	0.0023	±	0.0068	0.0051	±	0.0155	0.0002	±	0.0007
* Cu	0.0090	±	0.0102	0.0205	±	0.0236	0.0009	±	0.0010
Zn	0.1627	±	0.0113	0.3698	±	0.0879	0.0168	±	0.0014
* Ga	0.0000	±	0.0068	0.0000	±	0.0154	0.0000	±	0.0007
* Ge	0.0000	±	0.0079	0.0000	±	0.0180	0.0000	±	0.0008
* As	0.0000	±	0.0102	0.0000	±	0.0231	0.0000	±	0.0010
* Se	0.0000	±	0.0056	0.0000	±	0.0128	0.0000	±	0.0006
* Br	0.0102	±	0.0079	0.0231	±	0.0187	0.0010	±	0.0008
* Rb	0.0034	±	0.0079	0.0077	±	0.0181	0.0003	±	0.0008
* Sr	0.0011	±	0.0079	0.0026	±	0.0180	0.0001	±	0.0008
* Y	0.0000	±	0.0158	0.0000	±	0.0360	0.0000	±	0.0016
* Zr	0.0011	±	0.0226	0.0026	±	0.0514	0.0001	±	0.0023
* Nb	0.0000	±	0.0316	0.0000	±	0.0719	0.0000	±	0.0033
* Mo	0.0000	±	0.0384	0.0000	±	0.0873	0.0000	±	0.0040
* Pd	0.0203	±	0.0294	0.0462	±	0.0676	0.0021	±	0.0030
* Ag	0.0000	±	0.0316	0.0000	±	0.0719	0.0000	±	0.0033
* Cd	0.0000	±	0.0328	0.0000	±	0.0745	0.0000	±	0.0034
* In	0.0576	±	0.0429	0.1310	±	0.1020	0.0059	±	0.0044
* Sn	0.0000	±	0.0644	0.0000	±	0.1464	0.0000	±	0.0066
* Sb	0.0746	±	0.0780	0.1695	±	0.1813	0.0077	±	0.0080
* Cs	0.0000	±	0.0147	0.0000	±	0.0334	0.0000	±	0.0015
* Ba	0.0000	±	0.0158	0.0000	±	0.0360	0.0000	±	0.0016
* La	0.0181	±	0.0158	0.0411	±	0.0371	0.0019	±	0.0016
* Ce	0.0215	±	0.0136	0.0488	±	0.0328	0.0022	±	0.0014
* Sm	0.0000	±	0.0124	0.0000	±	0.0282	0.0000	±	0.0013
* Eu	0.0023	±	0.0237	0.0051	±	0.0539	0.0002	±	0.0024
* Tb	0.0000	±	0.0226	0.0000	±	0.0514	0.0000	±	0.0023
* Hf	0.0000	±	0.0102	0.0000	±	0.0231	0.0000	±	0.0010
* Ta	0.0000	±	0.0102	0.0000	±	0.0231	0.0000	±	0.0010
* W	0.0079	±	0.0079	0.0180	±	0.0184	0.0008	±	0.0008
* Ir	0.0000	±	0.0056	0.0000	±	0.0128	0.0000	±	0.0006
* Au	0.0000	±	0.0079	0.0000	±	0.0180	0.0000	±	0.0008
* Hg	0.0068	±	0.0124	0.0154	±	0.0285	0.0007	±	0.0013
* Pb	0.0113	±	0.0079	0.0257	±	0.0189	0.0012	±	0.0008

Lab ID: 23-T2085
Client ID: Canister SMAQMD 01_02

Analyte	µg/filter		percent		µg/m³	
IC	Conc.	DL	Conc.	DL	Conc.	DL
Cl	0.120	0.100	0.2727	0.2273	0.012	0.010
NO3	0.710	0.100	1.614	0.2273	0.073	0.010
SO4	4.620	0.200	10.50	0.4545	0.476	0.021
Na	0.450	0.100	1.023	0.2273	0.046	0.010
NH4	2.180	0.100	4.955	0.2273	0.225	0.010
K	< DL	0.100	< DL	0.2273	< DL	0.010

* - XRF Concentration is less than three times the uncertainty

Client: S061 - SMAQMD
Report Number: 23-451

Lab ID: 23-T2086
Filter ID: P7469190
Client ID: Canister SMAQMD 02_02
Site: 617Fern
Sample Date: 8/16/23
Filter Lot #: 7118468
Volume: 9.704 ± 0.485 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter			percent			µg/m³		
Gravimetry									
Net Mass	60.	±	10.				6.183	±	1.076
XRF									
* Na	0.7074	±	0.3119	1.179	±	0.5557	0.0729	±	0.0323
Mg	0.2316	±	0.0599	0.3861	±	0.1188	0.0239	±	0.0063
Al	0.5413	±	0.0881	0.9021	±	0.2102	0.0558	±	0.0095
Si	1.263	±	0.0655	2.106	±	0.3675	0.1302	±	0.0094
* P	0.0181	±	0.0136	0.0301	±	0.0232	0.0019	±	0.0014
S	2.528	±	0.1322	4.213	±	0.7359	0.2605	±	0.0188
* Cl	0.0305	±	0.0373	0.0508	±	0.0627	0.0031	±	0.0038
K	0.2441	±	0.0192	0.4068	±	0.0750	0.0252	±	0.0023
Ca	0.3187	±	0.0215	0.5311	±	0.0955	0.0328	±	0.0028
* Sc	0.0000	±	0.0124	0.0000	±	0.0207	0.0000	±	0.0013
Ti	0.0407	±	0.0102	0.0678	±	0.0204	0.0042	±	0.0011
* V	0.0056	±	0.0102	0.0094	±	0.0170	0.0006	±	0.0010
* Cr	0.0102	±	0.0090	0.0170	±	0.0153	0.0010	±	0.0009
* Mn	0.0136	±	0.0090	0.0226	±	0.0155	0.0014	±	0.0009
Fe	0.5571	±	0.0294	0.9285	±	0.1623	0.0574	±	0.0042
* Co	0.0011	±	0.0079	0.0019	±	0.0132	0.0001	±	0.0008
* Ni	0.0023	±	0.0068	0.0038	±	0.0113	0.0002	±	0.0007
* Cu	0.0068	±	0.0102	0.0113	±	0.0171	0.0007	±	0.0010
Zn	0.0723	±	0.0090	0.1205	±	0.0251	0.0075	±	0.0010
* Ga	0.0079	±	0.0068	0.0132	±	0.0115	0.0008	±	0.0007
* Ge	0.0000	±	0.0079	0.0000	±	0.0132	0.0000	±	0.0008
* As	0.0011	±	0.0102	0.0019	±	0.0170	0.0001	±	0.0010
* Se	0.0000	±	0.0056	0.0000	±	0.0094	0.0000	±	0.0006
* Br	0.0192	±	0.0079	0.0320	±	0.0142	0.0020	±	0.0008
* Rb	0.0000	±	0.0079	0.0000	±	0.0132	0.0000	±	0.0008
* Sr	0.0181	±	0.0079	0.0301	±	0.0141	0.0019	±	0.0008
* Y	0.0000	±	0.0158	0.0000	±	0.0264	0.0000	±	0.0016
* Zr	0.0102	±	0.0226	0.0170	±	0.0378	0.0010	±	0.0023
* Nb	0.0045	±	0.0316	0.0075	±	0.0527	0.0005	±	0.0033
* Mo	0.0260	±	0.0384	0.0433	±	0.0644	0.0027	±	0.0040
* Pd	0.0000	±	0.0294	0.0000	±	0.0490	0.0000	±	0.0030
* Ag	0.0000	±	0.0316	0.0000	±	0.0527	0.0000	±	0.0033
* Cd	0.0023	±	0.0328	0.0038	±	0.0546	0.0002	±	0.0034
* In	0.0079	±	0.0418	0.0132	±	0.0697	0.0008	±	0.0043
* Sn	0.0000	±	0.0644	0.0000	±	0.1074	0.0000	±	0.0066
* Sb	0.0000	±	0.0712	0.0000	±	0.1186	0.0000	±	0.0073
* Cs	0.0000	±	0.0147	0.0000	±	0.0245	0.0000	±	0.0015
* Ba	0.0203	±	0.0170	0.0339	±	0.0288	0.0021	±	0.0017
* La	0.0068	±	0.0170	0.0113	±	0.0283	0.0007	±	0.0017
* Ce	0.0000	±	0.0136	0.0000	±	0.0226	0.0000	±	0.0014
* Sm	0.0000	±	0.0113	0.0000	±	0.0188	0.0000	±	0.0012
* Eu	0.0000	±	0.0237	0.0000	±	0.0396	0.0000	±	0.0024
* Tb	0.0000	±	0.0294	0.0000	±	0.0490	0.0000	±	0.0030
* Hf	0.0000	±	0.0102	0.0000	±	0.0170	0.0000	±	0.0010
* Ta	0.0000	±	0.0102	0.0000	±	0.0170	0.0000	±	0.0010
* W	0.0000	±	0.0068	0.0000	±	0.0113	0.0000	±	0.0007
* Ir	0.0000	±	0.0056	0.0000	±	0.0094	0.0000	±	0.0006
* Au	0.0000	±	0.0079	0.0000	±	0.0132	0.0000	±	0.0008
* Hg	0.0045	±	0.0124	0.0075	±	0.0208	0.0005	±	0.0013
* Pb	0.0045	±	0.0079	0.0075	±	0.0132	0.0005	±	0.0008

Lab ID: 23-T2086
Client ID: Canister SMAQMD 02_02

Analyte	µg/filter		percent		µg/m³	
IC	Conc.	DL	Conc.	DL	Conc.	DL
Cl	0.110	0.100	0.1833	0.1667	0.011	0.010
NO3	0.540	0.100	0.9000	0.1667	0.056	0.010
SO4	4.130	0.200	6.883	0.3333	0.426	0.021
Na	0.370	0.100	0.6167	0.1667	0.038	0.010
NH4	2.260	0.100	3.767	0.1667	0.233	0.010
K	0.110	0.100	0.1833	0.1667	0.011	0.010

* - XRF Concentration is less than three times the uncertainty

Client: S061 - SMAQMD
Report Number: 23-451

Lab ID: 23-T2087
Filter ID: P7469191
Client ID: Canister SMAQMD 04_02
Site: 617Fern
Sample Date: 8/22/23
Filter Lot #: 7118468
Volume: 9.686 ± 0.484 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter			percent			µg/m³		
Gravimetry									
Net Mass	67.	±	10.				6.917	±	1.089
XRF									
Na	2.254	±	0.3503	3.365	±	0.7250	0.2327	±	0.0380
Mg	0.3627	±	0.0633	0.5414	±	0.1243	0.0374	±	0.0068
Al	0.4961	±	0.0870	0.7404	±	0.1705	0.0512	±	0.0093
Si	1.295	±	0.0678	1.933	±	0.3057	0.1337	±	0.0097
* P	0.0294	±	0.0147	0.0439	±	0.0229	0.0030	±	0.0015
S	3.831	±	0.1966	5.717	±	0.9024	0.3955	±	0.0283
* Cl	0.0734	±	0.0373	0.1096	±	0.0580	0.0076	±	0.0039
K	0.3254	±	0.0226	0.4857	±	0.0800	0.0336	±	0.0029
Ca	0.4848	±	0.0282	0.7235	±	0.1159	0.0500	±	0.0038
* Sc	0.0000	±	0.0124	0.0000	±	0.0186	0.0000	±	0.0013
* Ti	0.0294	±	0.0102	0.0439	±	0.0165	0.0030	±	0.0011
* V	0.0045	±	0.0102	0.0067	±	0.0152	0.0005	±	0.0011
* Cr	0.0158	±	0.0090	0.0236	±	0.0139	0.0016	±	0.0009
* Mn	0.0113	±	0.0090	0.0169	±	0.0137	0.0012	±	0.0009
Fe	0.5695	±	0.0294	0.8500	±	0.1342	0.0588	±	0.0042
* Co	0.0034	±	0.0079	0.0051	±	0.0118	0.0003	±	0.0008
* Ni	0.0000	±	0.0068	0.0000	±	0.0101	0.0000	±	0.0007
* Cu	0.0011	±	0.0102	0.0017	±	0.0152	0.0001	±	0.0010
Zn	0.0237	±	0.0079	0.0354	±	0.0129	0.0024	±	0.0008
* Ga	0.0000	±	0.0068	0.0000	±	0.0101	0.0000	±	0.0007
* As	0.0045	±	0.0102	0.0067	±	0.0152	0.0005	±	0.0011
* Se	0.0079	±	0.0056	0.0118	±	0.0086	0.0008	±	0.0006
Br	0.0316	±	0.0079	0.0472	±	0.0137	0.0033	±	0.0008
* Rb	0.0056	±	0.0079	0.0084	±	0.0119	0.0006	±	0.0008
* Sr	0.0102	±	0.0079	0.0152	±	0.0120	0.0010	±	0.0008
* Y	0.0000	±	0.0158	0.0000	±	0.0236	0.0000	±	0.0016
* Zr	0.0000	±	0.0226	0.0000	±	0.0337	0.0000	±	0.0023
* Nb	0.0000	±	0.0316	0.0000	±	0.0472	0.0000	±	0.0033
* Mo	0.0000	±	0.0384	0.0000	±	0.0573	0.0000	±	0.0040
* Ag	0.0000	±	0.0316	0.0000	±	0.0472	0.0000	±	0.0033
* Cd	0.0000	±	0.0328	0.0000	±	0.0489	0.0000	±	0.0034
* In	0.0000	±	0.0418	0.0000	±	0.0624	0.0000	±	0.0043
* Sn	0.0814	±	0.0644	0.1214	±	0.0978	0.0084	±	0.0067
* Sb	0.1311	±	0.0712	0.1956	±	0.1102	0.0135	±	0.0074
* Cs	0.0000	±	0.0147	0.0000	±	0.0219	0.0000	±	0.0015
* Ba	0.0136	±	0.0158	0.0202	±	0.0238	0.0014	±	0.0016
* La	0.0000	±	0.0170	0.0000	±	0.0253	0.0000	±	0.0017
* Ce	0.0000	±	0.0136	0.0000	±	0.0202	0.0000	±	0.0014
* Sm	0.0000	±	0.0113	0.0000	±	0.0169	0.0000	±	0.0012
* Eu	0.0000	±	0.0237	0.0000	±	0.0354	0.0000	±	0.0024
* Tb	0.0000	±	0.0305	0.0000	±	0.0455	0.0000	±	0.0031
* Hf	0.0000	±	0.0102	0.0000	±	0.0152	0.0000	±	0.0010
* Ta	0.0000	±	0.0102	0.0000	±	0.0152	0.0000	±	0.0010
* W	0.0023	±	0.0079	0.0034	±	0.0118	0.0002	±	0.0008
* Ir	0.0000	±	0.0056	0.0000	±	0.0084	0.0000	±	0.0006
* Au	0.0000	±	0.0079	0.0000	±	0.0118	0.0000	±	0.0008
* Hg	0.0045	±	0.0124	0.0067	±	0.0186	0.0005	±	0.0013
* Pb	0.0000	±	0.0079	0.0000	±	0.0118	0.0000	±	0.0008

Lab ID: 23-T2087
Client ID: Canister SMAQMD 04_02

Analyte	µg/filter		percent		µg/m³	
IC	Conc.	DL	Conc.	DL	Conc.	DL
Cl	0.200	0.100	0.2985	0.1493	0.021	0.010
NO3	3.110	0.100	4.642	0.1493	0.321	0.010
SO4	7.660	0.200	11.43	0.2985	0.791	0.021
Na	2.200	0.100	3.284	0.1493	0.227	0.010
NH4	3.240	0.100	4.836	0.1493	0.335	0.010
K	0.240	0.100	0.3582	0.1493	0.025	0.010

* - XRF Concentration is less than three times the uncertainty

Client: S061 - SMAQMD
Report Number: 23-451

Lab ID: 23-T2149
Filter ID: P7464154
Client ID: Canister SMAQMD 07_02
Site: 617Fern
Sample Date: 8/28/23
Filter Lot #: 7118468
Volume: 9.701 ± 0.485 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter			percent			µg/m³		
Gravimetry									
Net Mass	86.	±	10.				8.865	±	1.122
XRF									
Na	3.123	±	0.3582	3.632	±	0.5932	0.3220	±	0.0403
Mg	0.3480	±	0.0610	0.4047	±	0.0851	0.0359	±	0.0065
Al	0.3616	±	0.0848	0.4205	±	0.1100	0.0373	±	0.0089
Si	0.9628	±	0.0508	1.119	±	0.1430	0.0992	±	0.0072
P	0.0780	±	0.0147	0.0907	±	0.0201	0.0080	±	0.0016
S	2.825	±	0.1469	3.285	±	0.4184	0.2912	±	0.0210
Cl	1.133	±	0.0667	1.318	±	0.1717	0.1168	±	0.0090
K	0.4373	±	0.0271	0.5085	±	0.0670	0.0451	±	0.0036
Ca	0.3413	±	0.0226	0.3968	±	0.0531	0.0352	±	0.0029
* Sc	0.0000	±	0.0124	0.0000	±	0.0145	0.0000	±	0.0013
Ti	0.0418	±	0.0102	0.0486	±	0.0131	0.0043	±	0.0011
* V	0.0000	±	0.0102	0.0000	±	0.0118	0.0000	±	0.0010
* Cr	0.0102	±	0.0090	0.0118	±	0.0106	0.0010	±	0.0009
* Mn	0.0000	±	0.0090	0.0000	±	0.0105	0.0000	±	0.0009
Fe	0.4848	±	0.0260	0.5637	±	0.0722	0.0500	±	0.0037
* Co	0.0000	±	0.0079	0.0000	±	0.0092	0.0000	±	0.0008
* Ni	0.0000	±	0.0068	0.0000	±	0.0079	0.0000	±	0.0007
* Cu	0.0090	±	0.0102	0.0105	±	0.0119	0.0009	±	0.0010
Zn	0.0328	±	0.0079	0.0381	±	0.0102	0.0034	±	0.0008
* Ga	0.0000	±	0.0068	0.0000	±	0.0079	0.0000	±	0.0007
* As	0.0147	±	0.0102	0.0171	±	0.0120	0.0015	±	0.0011
* Se	0.0011	±	0.0056	0.0013	±	0.0066	0.0001	±	0.0006
Br	0.0429	±	0.0079	0.0499	±	0.0109	0.0044	±	0.0008
* Rb	0.0023	±	0.0079	0.0026	±	0.0092	0.0002	±	0.0008
* Sr	0.0000	±	0.0079	0.0000	±	0.0092	0.0000	±	0.0008
* Y	0.0000	±	0.0158	0.0000	±	0.0184	0.0000	±	0.0016
* Zr	0.0090	±	0.0226	0.0105	±	0.0263	0.0009	±	0.0023
* Nb	0.0000	±	0.0316	0.0000	±	0.0368	0.0000	±	0.0033
* Mo	0.0000	±	0.0384	0.0000	±	0.0447	0.0000	±	0.0040
* Ag	0.0633	±	0.0316	0.0736	±	0.0378	0.0065	±	0.0033
* Cd	0.0000	±	0.0328	0.0000	±	0.0381	0.0000	±	0.0034
* In	0.0000	±	0.0418	0.0000	±	0.0486	0.0000	±	0.0043
* Sn	0.0000	±	0.0644	0.0000	±	0.0749	0.0000	±	0.0066
* Sb	0.1537	±	0.0723	0.1787	±	0.0866	0.0158	±	0.0075
* Cs	0.0000	±	0.0147	0.0000	±	0.0171	0.0000	±	0.0015
* Ba	0.0000	±	0.0170	0.0000	±	0.0197	0.0000	±	0.0017
* La	0.0000	±	0.0170	0.0000	±	0.0197	0.0000	±	0.0017
* Ce	0.0056	±	0.0136	0.0066	±	0.0158	0.0006	±	0.0014
* Sm	0.0000	±	0.0113	0.0000	±	0.0131	0.0000	±	0.0012
* Eu	0.0011	±	0.0237	0.0013	±	0.0276	0.0001	±	0.0024
* Tb	0.0000	±	0.0294	0.0000	±	0.0342	0.0000	±	0.0030
* Hf	0.0000	±	0.0102	0.0000	±	0.0118	0.0000	±	0.0010
* Ta	0.0000	±	0.0102	0.0000	±	0.0118	0.0000	±	0.0010
* W	0.0000	±	0.0068	0.0000	±	0.0079	0.0000	±	0.0007
* Ir	0.0000	±	0.0056	0.0000	±	0.0066	0.0000	±	0.0006
* Au	0.0000	±	0.0079	0.0000	±	0.0092	0.0000	±	0.0008
* Hg	0.0056	±	0.0124	0.0066	±	0.0145	0.0006	±	0.0013
* Pb	0.0000	±	0.0079	0.0000	±	0.0092	0.0000	±	0.0008

Lab ID: 23-T2149
Client ID: Canister SMAQMD 07_02

Analyte	µg/filter		percent		µg/m³	
IC	Conc.	DL	Conc.	DL	Conc.	DL
Cl	1.250	0.100	1.453	0.1163	0.129	0.010
NO3	3.750	0.100	4.360	0.1163	0.387	0.010
SO4	5.680	0.200	6.605	0.2326	0.586	0.021
Na	2.990	0.100	3.477	0.1163	0.308	0.010
NH4	2.860	0.100	3.326	0.1163	0.295	0.010
K	0.370	0.100	0.4302	0.1163	0.038	0.010

* - XRF Concentration is less than three times the uncertainty

Client: S061 - SMAQMD
Report Number: 23-451

Lab ID: 23-T2150
Filter ID: P7464155
Client ID: Canister SMAQMD 08_02
Site: 617Fern
Sample Date: 9/ 3/23
Filter Lot #: 7118468
Volume: 9.710 ± 0.485 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter			percent			µg/m³		
Gravimetry									
Net Mass	42.	±	10.				4.325	±	1.052
XRF									
Na	1.264	±	0.3300	3.011	±	1.064	0.1302	±	0.0346
* Mg	0.1379	±	0.0610	0.3282	±	0.1650	0.0142	±	0.0063
* Al	0.0848	±	0.0780	0.2018	±	0.1918	0.0087	±	0.0080
Si	0.1209	±	0.0181	0.2879	±	0.0809	0.0125	±	0.0020
* P	0.0023	±	0.0136	0.0054	±	0.0323	0.0002	±	0.0014
S	1.900	±	0.1006	4.523	±	1.103	0.1956	±	0.0142
Cl	0.5842	±	0.0475	1.391	±	0.3499	0.0602	±	0.0057
K	0.1480	±	0.0170	0.3525	±	0.0931	0.0152	±	0.0019
Ca	0.0915	±	0.0147	0.2179	±	0.0626	0.0094	±	0.0016
* Sc	0.0000	±	0.0113	0.0000	±	0.0269	0.0000	±	0.0012
* Ti	0.0090	±	0.0090	0.0215	±	0.0221	0.0009	±	0.0009
* V	0.0011	±	0.0102	0.0027	±	0.0242	0.0001	±	0.0010
* Cr	0.0136	±	0.0090	0.0323	±	0.0229	0.0014	±	0.0009
* Mn	0.0000	±	0.0090	0.0000	±	0.0215	0.0000	±	0.0009
Fe	0.0633	±	0.0090	0.1507	±	0.0418	0.0065	±	0.0010
* Co	0.0000	±	0.0068	0.0000	±	0.0161	0.0000	±	0.0007
* Ni	0.0000	±	0.0068	0.0000	±	0.0161	0.0000	±	0.0007
* Cu	0.0000	±	0.0102	0.0000	±	0.0242	0.0000	±	0.0010
* Zn	0.0000	±	0.0079	0.0000	±	0.0188	0.0000	±	0.0008
* Ga	0.0000	±	0.0068	0.0000	±	0.0161	0.0000	±	0.0007
* As	0.0000	±	0.0102	0.0000	±	0.0242	0.0000	±	0.0010
* Se	0.0045	±	0.0056	0.0108	±	0.0137	0.0005	±	0.0006
* Br	0.0068	±	0.0079	0.0161	±	0.0192	0.0007	±	0.0008
* Rb	0.0079	±	0.0079	0.0188	±	0.0194	0.0008	±	0.0008
* Sr	0.0023	±	0.0079	0.0054	±	0.0189	0.0002	±	0.0008
* Y	0.0000	±	0.0158	0.0000	±	0.0377	0.0000	±	0.0016
* Zr	0.0000	±	0.0226	0.0000	±	0.0538	0.0000	±	0.0023
* Nb	0.0000	±	0.0316	0.0000	±	0.0753	0.0000	±	0.0033
* Mo	0.0000	±	0.0384	0.0000	±	0.0915	0.0000	±	0.0040
* Ag	0.0000	±	0.0316	0.0000	±	0.0753	0.0000	±	0.0033
* Cd	0.0000	±	0.0328	0.0000	±	0.0780	0.0000	±	0.0034
* In	0.0170	±	0.0418	0.0404	±	0.1000	0.0017	±	0.0043
* Sn	0.0000	±	0.0644	0.0000	±	0.1534	0.0000	±	0.0066
* Sb	0.0000	±	0.0712	0.0000	±	0.1695	0.0000	±	0.0073
* Cs	0.0000	±	0.0147	0.0000	±	0.0350	0.0000	±	0.0015
* Ba	0.0000	±	0.0158	0.0000	±	0.0377	0.0000	±	0.0016
* La	0.0000	±	0.0158	0.0000	±	0.0377	0.0000	±	0.0016
* Ce	0.0000	±	0.0136	0.0000	±	0.0323	0.0000	±	0.0014
* Sm	0.0000	±	0.0124	0.0000	±	0.0296	0.0000	±	0.0013
* Eu	0.0000	±	0.0237	0.0000	±	0.0565	0.0000	±	0.0024
* Tb	0.0000	±	0.0181	0.0000	±	0.0430	0.0000	±	0.0019
* Hf	0.0000	±	0.0102	0.0000	±	0.0242	0.0000	±	0.0010
* Ta	0.0000	±	0.0102	0.0000	±	0.0242	0.0000	±	0.0010
* W	0.0000	±	0.0068	0.0000	±	0.0161	0.0000	±	0.0007
* Ir	0.0000	±	0.0056	0.0000	±	0.0135	0.0000	±	0.0006
* Au	0.0000	±	0.0079	0.0000	±	0.0188	0.0000	±	0.0008
* Hg	0.0034	±	0.0124	0.0081	±	0.0297	0.0003	±	0.0013
* Pb	0.0000	±	0.0079	0.0000	±	0.0188	0.0000	±	0.0008

Lab ID: 23-T2150
Client ID: Canister SMAQMD 08_02

Analyte	µg/filter		percent		µg/m³	
IC	Conc.	DL	Conc.	DL	Conc.	DL
Cl	0.760	0.100	1.810	0.2381	0.078	0.010
NO3	2.490	0.100	5.929	0.2381	0.256	0.010
SO4	3.090	0.200	7.357	0.4762	0.318	0.021
Na	1.770	0.100	4.214	0.2381	0.182	0.010
NH4	1.360	0.100	3.238	0.2381	0.140	0.010
K	0.220	0.100	0.5238	0.2381	0.023	0.010

* - XRF Concentration is less than three times the uncertainty

Client: S061 - SMAQMD
Report Number: 23-451

Lab ID: 23-T2151
Filter ID: P7464156
Client ID: Canister SMAQMD 09_02
Site: 617Fern
Sample Date: 9/ 9/23
Filter Lot #: 7118468
Volume: 9.701 ± 0.485 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter			percent			µg/m³		
Gravimetry									
Net Mass	44.	±	10.				4.536	±	1.055
XRF									
Na	1.881	±	0.3334	4.276	±	1.232	0.1939	±	0.0357
Mg	0.1955	±	0.0610	0.4443	±	0.1715	0.0202	±	0.0064
Al	0.2768	±	0.0814	0.6292	±	0.2338	0.0285	±	0.0085
Si	0.6995	±	0.0384	1.590	±	0.3717	0.0721	±	0.0054
* P	0.0136	±	0.0136	0.0308	±	0.0316	0.0014	±	0.0014
S	2.585	±	0.1345	5.876	±	1.370	0.2665	±	0.0192
Cl	0.3006	±	0.0396	0.6831	±	0.1794	0.0310	±	0.0044
K	0.2011	±	0.0181	0.4571	±	0.1117	0.0207	±	0.0021
Ca	0.2136	±	0.0181	0.4854	±	0.1177	0.0220	±	0.0022
* Sc	0.0000	±	0.0124	0.0000	±	0.0282	0.0000	±	0.0013
* Ti	0.0226	±	0.0102	0.0514	±	0.0259	0.0023	±	0.0011
* V	0.0000	±	0.0102	0.0000	±	0.0231	0.0000	±	0.0010
* Cr	0.0023	±	0.0090	0.0051	±	0.0206	0.0002	±	0.0009
* Mn	0.0079	±	0.0090	0.0180	±	0.0209	0.0008	±	0.0009
Fe	0.2893	±	0.0170	0.6575	±	0.1543	0.0298	±	0.0023
* Co	0.0000	±	0.0079	0.0000	±	0.0180	0.0000	±	0.0008
* Ni	0.0000	±	0.0068	0.0000	±	0.0154	0.0000	±	0.0007
* Cu	0.0034	±	0.0102	0.0077	±	0.0232	0.0003	±	0.0010
* Zn	0.0203	±	0.0079	0.0462	±	0.0208	0.0021	±	0.0008
* Ga	0.0023	±	0.0068	0.0051	±	0.0155	0.0002	±	0.0007
* As	0.0045	±	0.0102	0.0103	±	0.0232	0.0005	±	0.0010
* Se	0.0000	±	0.0056	0.0000	±	0.0128	0.0000	±	0.0006
* Br	0.0181	±	0.0079	0.0411	±	0.0203	0.0019	±	0.0008
* Rb	0.0000	±	0.0079	0.0000	±	0.0180	0.0000	±	0.0008
* Sr	0.0056	±	0.0079	0.0128	±	0.0182	0.0006	±	0.0008
* Y	0.0000	±	0.0158	0.0000	±	0.0360	0.0000	±	0.0016
* Zr	0.0000	±	0.0226	0.0000	±	0.0514	0.0000	±	0.0023
* Nb	0.0000	±	0.0316	0.0000	±	0.0719	0.0000	±	0.0033
* Mo	0.0260	±	0.0384	0.0591	±	0.0883	0.0027	±	0.0040
* Ag	0.0000	±	0.0316	0.0000	±	0.0719	0.0000	±	0.0033
* Cd	0.0554	±	0.0328	0.1258	±	0.0798	0.0057	±	0.0034
* In	0.0655	±	0.0429	0.1490	±	0.1033	0.0068	±	0.0044
* Sn	0.0407	±	0.0588	0.0925	±	0.1352	0.0042	±	0.0061
* Sb	0.0000	±	0.0712	0.0000	±	0.1618	0.0000	±	0.0073
* Cs	0.0000	±	0.0147	0.0000	±	0.0334	0.0000	±	0.0015
* Ba	0.0000	±	0.0158	0.0000	±	0.0360	0.0000	±	0.0016
* La	0.0000	±	0.0170	0.0000	±	0.0385	0.0000	±	0.0017
* Ce	0.0000	±	0.0136	0.0000	±	0.0308	0.0000	±	0.0014
* Sm	0.0000	±	0.0113	0.0000	±	0.0257	0.0000	±	0.0012
* Eu	0.0000	±	0.0237	0.0000	±	0.0539	0.0000	±	0.0024
* Tb	0.0079	±	0.0226	0.0180	±	0.0515	0.0008	±	0.0023
* Hf	0.0000	±	0.0102	0.0000	±	0.0231	0.0000	±	0.0010
* Ta	0.0000	±	0.0102	0.0000	±	0.0231	0.0000	±	0.0010
* W	0.0000	±	0.0079	0.0000	±	0.0180	0.0000	±	0.0008
* Ir	0.0000	±	0.0056	0.0000	±	0.0128	0.0000	±	0.0006
* Au	0.0000	±	0.0079	0.0000	±	0.0180	0.0000	±	0.0008
* Hg	0.0090	±	0.0124	0.0205	±	0.0286	0.0009	±	0.0013
* Pb	0.0056	±	0.0079	0.0128	±	0.0182	0.0006	±	0.0008

Lab ID: 23-T2151
Client ID: Canister SMAQMD 09_02

Analyte	µg/filter		percent		µg/m³	
IC	Conc.	DL	Conc.	DL	Conc.	DL
Cl	0.350	0.100	0.7955	0.2273	0.036	0.010
NO3	2.640	0.100	6.000	0.2273	0.272	0.010
SO4	4.110	0.200	9.341	0.4545	0.424	0.021
Na	1.730	0.100	3.932	0.2273	0.178	0.010
NH4	1.850	0.100	4.205	0.2273	0.191	0.010
K	0.160	0.100	0.3636	0.2273	0.016	0.010

* - XRF Concentration is less than three times the uncertainty

Lab ID: 23-U411
Client ID: Canister SMAQMD 05_02
Site: 617Fern
Sample Date: 8/10/23
Volume: 9.708 +- 0.485 m³
Deposit Area: 13.90 cm²
Size Fraction: PM2.5

Analyte	µg/filter			µg/m³		
OC	36.70	±	3.197	3.780	±	0.3796
EC	0.0000	±	1.390	0.0000	±	0.1432
TC	36.70	±	4.587	3.780	±	0.5088
Organic Carbon Fractions						
OC1	0.2780			0.0286		
OC2	7.645			0.7875		
OC3	16.12			1.661		
OC4	7.089			0.7302		
PC	5.421			0.5584		
Elemental Carbon Fractions						
EC1	2.085			0.2148		
EC2	2.502			0.2577		
EC3	0.8340			0.0859		

Lab ID: 23-U412
Client ID: Canister SMAQMD 13
Site: 617Fern
Sample Date: 8/16/23
Volume: 9.704 +- 0.485 m³
Deposit Area: 13.90 cm²
Size Fraction: PM2.5

Analyte	µg/filter			µg/m³		
OC	59.08	±	4.309	6.088	±	0.5383
EC	0.8340	±	1.390	0.0859	±	0.1433
TC	60.05	±	5.838	6.188	±	0.6764
Organic Carbon Fractions						
OC1	0.6950			0.0716		
OC2	13.20			1.361		
OC3	23.49			2.421		
OC4	10.70			1.103		
PC	11.12			1.146		
Elemental Carbon Fractions						
EC1	5.560			0.5730		
EC2	5.143			0.5300		
EC3	1.251			0.1289		

OC: Organic Carbon EC: Elemental Carbon PC: Pyrolyzed Carbon TC: Total Carbon

OC = OC1 + OC2 + OC3 + OC4 + PC EC = EC1 + EC2 + EC3 - PC TC = OC + EC

Lab ID: 23-U413
Client ID: Canister SMAQMD 14
Site: 617Fern
Sample Date: 8/22/23
Volume: 9.701 +- 0.485 m³
Deposit Area: 13.90 cm²
Size Fraction: PM2.5

Analyte	µg/filter			µg/m³		
OC	41.00	±	3.475	4.227	±	0.4159
EC	2.224	±	1.529	0.2293	±	0.1580
TC	43.37	±	5.004	4.470	±	0.5622
Organic Carbon Fractions						
OC1	0.2780			0.0287		
OC2	9.452			0.9743		
OC3	15.98			1.648		
OC4	8.618			0.8884		
PC	6.811			0.7021		
Elemental Carbon Fractions						
EC1	4.587			0.4728		
EC2	3.753			0.3869		
EC3	0.8340			0.0860		

Lab ID: 23-U423
Client ID: Canister SMAQMD 10_02
Site: 617Fern
Sample Date: 8/28/23
Volume: 9.704 +- 0.485 m³
Deposit Area: 13.90 cm²
Size Fraction: PM2.5

Analyte	µg/filter			µg/m³		
OC	59.49	±	4.309	6.131	±	0.5395
EC	4.726	±	1.668	0.4870	±	0.1736
TC	64.22	±	5.977	6.618	±	0.6991
Organic Carbon Fractions						
OC1	0.4170			0.0430		
OC2	13.62			1.404		
OC3	23.77			2.449		
OC4	10.29			1.060		
PC	11.54			1.189		
Elemental Carbon Fractions						
EC1	9.452			0.9740		
EC2	5.838			0.6016		
EC3	0.9730			0.1003		

OC: Organic Carbon EC: Elemental Carbon PC: Pyrolyzed Carbon TC: Total Carbon

OC = OC1 + OC2 + OC3 + OC4 + PC EC = EC1 + EC2 + EC3 - PC TC = OC + EC

Lab ID: 23-U424
Client ID: Canister SMAQMD 11_02
Site: 617Fern
Sample Date: 9/ 3/23
Volume: 9.712 +- 0.486 m³
Deposit Area: 11.30 cm²
Size Fraction: PM2.5

Analyte	µg/filter			µg/m³		
OC	20.68	±	2.147	2.129	±	0.2454
EC	0.0000	±	1.130	0.0000	±	0.1164
TC	20.68	±	3.277	2.129	±	0.3538
Organic Carbon Fractions						
OC1	0.3390			0.0349		
OC2	4.746			0.4887		
OC3	7.797			0.8028		
OC4	3.503			0.3607		
PC	4.294			0.4421		
Elemental Carbon Fractions						
EC1	2.034			0.2094		
EC2	1.921			0.1978		
EC3	0.3390			0.0349		

Lab ID: 23-U425
Client ID: Canister SMAQMD 12_02
Site: 617Fern
Sample Date: 9/ 9/23
Volume: 9.709 +- 0.485 m³
Deposit Area: 11.30 cm²
Size Fraction: PM2.5

Analyte	µg/filter			µg/m³		
OC	25.54	±	2.373	2.630	±	0.2775
EC	2.825	±	1.243	0.2910	±	0.1288
TC	28.36	±	3.729	2.921	±	0.4109
Organic Carbon Fractions						
OC1	0.3390			0.0349		
OC2	7.910			0.8147		
OC3	8.814			0.9078		
OC4	5.085			0.5237		
PC	3.390			0.3492		
Elemental Carbon Fractions						
EC1	2.825			0.2910		
EC2	2.599			0.2677		
EC3	0.6780			0.0698		

OC: Organic Carbon EC: Elemental Carbon PC: Pyrolyzed Carbon TC: Total Carbon

OC = OC1 + OC2 + OC3 + OC4 + PC EC = EC1 + EC2 + EC3 - PC TC = OC + EC

CHESTER LabNet

Quant'X 1020 **XRF Analytical Quality Assurance Report**

Client: Sacramento Metro AQMD
Report: 23-451
Analysis Period: August 31 through September 20, 2023
Number of Samples: 6

1. Precision Data

Micromatter Multi-elemental Quality Control Standard: 34103

QC Standard Results

Analyte	n	micrograms per square centimeter			c.v.	%E
		Calib.	Meas.	S.D.		
Si	2	7.03	6.99	0.04	0.59	-0.53
Ti	2	10.22	10.16	0.02	0.19	-0.58
Fe	2	10.59	10.54	0.03	0.26	-0.42
Se	2	5.26	5.25	0.03	0.66	-0.11
Cd	2	6.47	6.40	0.18	2.87	-1.04
Pb	2	12.61	12.55	0.03	0.20	-0.44

2. Accuracy Data

NIST Standard Reference Materials: SRM 2783

Analyte/ SRM	n	Certified Value(µg/cm²)	Measured Value (µg/cm²)			% Rec.
			High	Low	Average	
K 2783	4	0.5301	0.5166	0.5158	0.5163 +/- 0.0003	97.4
Ca 2783	4	1.3253	1.1906	1.1724	1.1797 +/- 0.0068	89.0
Ti 2783	4	0.1496	0.1503	0.1483	0.1494 +/- 0.0008	99.9
Fe 2783	4	2.6606	2.6531	2.6149	2.6339 +/- 0.0142	99.0
Cu 2783	4	0.0406	0.0412	0.0395	0.0403 +/- 0.0006	99.4
Zn 2783	4	0.1797	0.2316	0.2269	0.2285 +/- 0.0019	127.1
Pb 2783	4	0.0318	0.0359	0.0342	0.0351 +/- 0.0006	110.4

3. Addendum

Micromatter Certified Reference Materials

CRM	Analytes	Certified Value(µg/cm²)	Measured Value(µg/cm²)	% Rec.
39149	Cr	53.7	54.4	101.3
39150	Cu	49.4	48.7	98.5
39151	Zn, Te	49.8	51.2	102.9
39152	Ga, As	50.9	49.8	97.8
39153	Se, Cd	47.1	46.7	99.2
39154	Pb	47.9	50.4	105.3

NIST: National Institute of Standards and Technology
% Rec: Percent Recovery = (Experimental/Given) x 100
n: Number of Observations
S.D.: Standard Deviation
c.v.: Coefficient of Variation = (S.D./Measured) x 100
% E: Percent Error = [(Measured-Calibrated)/Calibrated] x 100

QUANT'X 1020 REPLICATE REPORT
4.39
Original ID: 23T2149
Replicate ID: RT2149

Element	Original ug/cm2			Replicate ug/cm2			Difference ug/cm2				RPD		
Na	0.2764	+-	0.0317	0.2774	+-	0.0323	-0.0011	+-	0.0453	+	-0.4	+-	16.3
Mg	0.0308	+-	0.0054	0.0323	+-	0.0056	-0.0015	+-	0.0078	+	-4.8	+-	24.8
Al	0.0320	+-	0.0075	0.0284	+-	0.0074	0.0036	+-	0.0105	+	12.0	+-	34.8
Si	0.0852	+-	0.0045	0.0844	+-	0.0045	0.0008	+-	0.0064	+	0.9	+-	7.5
P	0.0069	+-	0.0013	0.0058	+-	0.0013	0.0011	+-	0.0018	+	17.4	+-	28.2
S	0.2500	+-	0.0130	0.2478	+-	0.0129	0.0022	+-	0.0183	+	0.9	+-	7.4
Cl	0.1003	+-	0.0059	0.0917	+-	0.0056	0.0086	+-	0.0082	0	9.0	+-	8.5
K	0.0387	+-	0.0024	0.0405	+-	0.0024	-0.0018	+-	0.0034	+	-4.6	+-	8.6
Ca	0.0302	+-	0.0020	0.0294	+-	0.0019	0.0008	+-	0.0028	+	2.6	+-	9.3
Sc	0.0000	+-	0.0011	0.0000	+-	0.0011	0.0000	+-	0.0015				
Ti	0.0037	+-	0.0009	0.0032	+-	0.0009	0.0006	+-	0.0012	+	16.2	+-	35.4
V	0.0000	+-	0.0009	0.0000	+-	0.0009	0.0000	+-	0.0012				
Cr	0.0009	+-	0.0008	0.0011	+-	0.0008	-0.0002	+-	0.0011				
Mn	0.0000	+-	0.0008	0.0004	+-	0.0008	-0.0004	+-	0.0011				
Fe	0.0429	+-	0.0023	0.0405	+-	0.0022	0.0024	+-	0.0031	+	5.7	+-	7.5
Co	0.0000	+-	0.0007	0.0010	+-	0.0007	-0.0010	+-	0.0009				
Ni	0.0000	+-	0.0006	0.0000	+-	0.0006	0.0000	+-	0.0009				
Cu	0.0008	+-	0.0009	0.0005	+-	0.0009	0.0003	+-	0.0013				
Zn	0.0029	+-	0.0007	0.0026	+-	0.0007	0.0004	+-	0.0010	+	12.8	+-	37.4
Ga	0.0000	+-	0.0006	0.0000	+-	0.0006	0.0000	+-	0.0009				
As	0.0013	+-	0.0009	0.0002	+-	0.0009	0.0011	+-	0.0013				
Se	0.0001	+-	0.0005	0.0000	+-	0.0005	0.0001	+-	0.0007				
Br	0.0038	+-	0.0007	0.0029	+-	0.0007	0.0009	+-	0.0010	+	26.1	+-	31.0
Rb	0.0002	+-	0.0007	0.0000	+-	0.0007	0.0002	+-	0.0010				
Sr	0.0000	+-	0.0007	0.0007	+-	0.0007	-0.0007	+-	0.0010				
Y	0.0000	+-	0.0014	0.0000	+-	0.0014	0.0000	+-	0.0020				
Zr	0.0008	+-	0.0020	0.0010	+-	0.0020	-0.0002	+-	0.0029				
Nb	0.0000	+-	0.0028	0.0003	+-	0.0028	-0.0003	+-	0.0039				
Mo	0.0000	+-	0.0034	0.0016	+-	0.0034	-0.0016	+-	0.0048				
Ag	0.0056	+-	0.0028	0.0012	+-	0.0028	0.0044	+-	0.0039				
Cd	0.0000	+-	0.0029	0.0000	+-	0.0029	0.0000	+-	0.0041				
In	0.0000	+-	0.0037	0.0000	+-	0.0037	0.0000	+-	0.0053				
Sn	0.0000	+-	0.0057	0.0000	+-	0.0057	0.0000	+-	0.0080				
Sb	0.0136	+-	0.0064	0.0000	+-	0.0063	0.0136	+-	0.0090				
Cs	0.0000	+-	0.0013	0.0000	+-	0.0013	0.0000	+-	0.0019				
Ba	0.0000	+-	0.0015	0.0041	+-	0.0014	-0.0041	+-	0.0021				
La	0.0000	+-	0.0015	0.0015	+-	0.0014	-0.0015	+-	0.0021				
Ce	0.0005	+-	0.0012	0.0000	+-	0.0012	0.0005	+-	0.0016				
Sm	0.0000	+-	0.0010	0.0000	+-	0.0010	0.0000	+-	0.0014				
Eu	0.0001	+-	0.0021	0.0001	+-	0.0021	0.0000	+-	0.0030				
Tb	0.0000	+-	0.0026	0.0000	+-	0.0026	0.0000	+-	0.0036				
Hf	0.0000	+-	0.0009	0.0000	+-	0.0009	0.0000	+-	0.0012				
Ta	0.0000	+-	0.0009	0.0000	+-	0.0009	0.0000	+-	0.0012				
W	0.0000	+-	0.0006	0.0000	+-	0.0006	0.0000	+-	0.0009				
Ir	0.0000	+-	0.0005	0.0000	+-	0.0005	0.0000	+-	0.0008				
Au	0.0000	+-	0.0007	0.0000	+-	0.0007	0.0000	+-	0.0010				
Hg	0.0005	+-	0.0011	0.0006	+-	0.0011	-0.0001	+-	0.0016				
Pb	0.0000	+-	0.0007	0.0010	+-	0.0007	-0.0010	+-	0.0010				

RPD: Relative Percent Difference (X1-X2)/[(X1+X2)/2]*100. RPD is calculated when original value is greater than three times its uncertainty.

QA/QC Report

Client Name: SMAQMD
Project Number: S061
Analytical Technique: Ion Chromatography
Instrument: Thermo ICS-5000
Sample Description: 47mm Teflon
Report Number: 23-451

Blank Data

Analyte	Sample ID	Measured Conc. mg/L	DL Conc. mg/L
Cl	ICB	< DL	0.010
Cl	Meth_Blk	< DL	0.010
Cl	CCB	< DL	0.010
Cl	CCB	< DL	0.010
NO3	ICB	< DL	0.030
NO3	Meth_Blk	< DL	0.030
NO3	CCB	< DL	0.030
NO3	CCB	< DL	0.030
SO4	ICB	< DL	0.020
SO4	Meth_Blk	< DL	0.020
SO4	CCB	< DL	0.020
SO4	CCB	< DL	0.020
Na	ICB	< DL	0.020
Na	Meth_Blk	< DL	0.020
Na	CCB	< DL	0.020
Na	CCB	< DL	0.020
Na	CCB	< DL	0.020
NH4	ICB	< DL	0.010
NH4	Meth_Blk	< DL	0.010
NH4	CCB	< DL	0.010
NH4	CCB	< DL	0.010
NH4	CCB	< DL	0.010
K	ICB	< DL	0.010
K	Meth_Blk	< DL	0.010
K	CCB	< DL	0.010
K	CCB	< DL	0.010
K	CCB	< DL	0.010

ICB: Initial Calibration Blank CCB: Continuing Calibration Blank
*: Sample Media Blank (SM_Blk) concentration in µg/filter
Method Blank is in control if Method Blank results are <10% of sample results

Calibration QC

Analyte	Sample ID	Standard Conc. mg/L	Measured Conc. mg/L	Percent Recovery
Cl	ICV	0.500	0.510	102.0
Cl	LL-LCS	0.030	0.037	123.3

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 110% Recovery
Low Level-LCS Limits: 50% - 150% Recovery
LL-LCS results are insignificant if sample results are >10x LL-LCS concentration

QA/QC Report

Client Name: SMAQMD
Project Number: S061
Analytical Technique: Ion Chromatography
Instrument: Thermo ICS-5000
Sample Description: 47mm Teflon
Report Number: 23-451

Calibration QC (continued)

Analyte	Sample ID	Standard Conc. mg/L	Measured Conc. mg/L	Percent Recovery
Cl	CCV	0.500	0.508	101.6
Cl	CCV	0.500	0.511	102.2
NO3	ICV	0.500	0.500	100.0
NO3	LL-LCS	0.100	0.120	120.0
NO3	CCV	0.500	0.506	101.2
NO3	CCV	0.500	0.497	99.4
SO4	ICV	0.500	0.534	106.8
SO4	LL-LCS	0.060	0.071	118.3
SO4	CCV	0.500	0.523	104.6
SO4	CCV	0.500	0.528	105.6
Na	ICV	0.500	0.499	99.8
Na	LL-LCS	0.040	0.037	92.5
Na	CCV	0.500	0.505	101.0
Na	CCV	0.500	0.500	100.0
Na	CCV	0.500	0.503	100.6
NH4	ICV	0.500	0.534	106.8
NH4	LL-LCS	0.030	0.035	116.7
NH4	CCV	0.500	0.543	108.6
NH4	CCV	0.500	0.536	107.2
NH4	CCV	0.500	0.543	108.6
K	ICV	0.500	0.520	104.0
K	LL-LCS	0.030	0.023	76.7
K	CCV	0.500	0.530	106.0
K	CCV	0.500	0.521	104.2
K	CCV	0.500	0.523	104.6

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 110% Recovery
Low Level-LCS Limits: 50% - 150% Recovery
LL-LCS results are insignificant if sample results are >10x LL-LCS concentration

Replicate Data

Analyte	Sample ID	Sample Conc. mg/L	Replicate Conc. mg/L	RPD
Cl	23-T2086	0.011	0.012	8.70 *
NO3	23-T2086	0.054	0.053	1.87
SO4	23-T2086	0.413	0.417	0.96

RPD = {(sample-replicate)/[(sample+replicate)/2]}x100
N/C: RPD is not calculated when sample or replicate is below detection limit
Replicate Limit: 20% RPD
*: per EPA CLP protocol, control limits do not apply if sample and/or replicate concentration is less than 5x the detection limit

QA/QC Report

Client Name: SMAQMD
Project Number: S061
Analytical Technique: Ion Chromatography
Instrument: Thermo ICS-5000
Sample Description: 47mm Teflon
Report Number: 23-451

Replicate Data (continued)

Analyte	Sample ID	Sample Conc. mg/L	Replicate Conc. mg/L	RPD
Na	23-T2087	0.220	0.222	0.90
NH4	23-T2087	0.324	0.326	0.62
K	23-T2087	0.024	0.024	0.00 *

RPD = {(sample-replicate)/[(sample+replicate)/2]}x100
N/C: RPD is not calculated when sample or replicate is below detection limit
Replicate Limit: 20% RPD
*: per EPA CLP protocol, control limits do not apply if sample and/or replicate concentration is less than 5x the detection limit

Laboratory Control Sample/Matrix Post Spike Analysis

Analyte	Sample ID	Sample Conc. mg/L	Spike Conc. mg/L	Spike Amount mg/L	Percent Recovery
Cl	LCS	< 0.01	0.517	0.500	103.
Cl	LCS-Duplicate	< 0.01	0.519	0.500	104.
Cl	23-T2085	0.012	0.525	0.500	103.
NO3	LCS	< 0.03	0.530	0.500	106.
NO3	LCS-Duplicate	< 0.03	0.519	0.500	104.
NO3	23-T2085	0.071	0.568	0.500	99.4
SO4	LCS	< 0.02	0.551	0.500	110.
SO4	LCS-Duplicate	< 0.02	0.524	0.500	105.
SO4	23-T2085	0.462	0.960	0.500	99.6
Na	LCS	< 0.02	0.520	0.500	104.
Na	LCS-Duplicate	< 0.02	0.514	0.500	103.
Na	23-T2149	0.299	0.833	0.500	107.
NH4	LCS	< 0.01	0.560	0.500	112.
NH4	LCS-Duplicate	< 0.01	0.546	0.500	109.
NH4	23-T2149	0.286	0.835	0.500	110.
K	LCS	< 0.01	0.529	0.500	106.
K	LCS-Duplicate	< 0.01	0.521	0.500	104.
K	23-T2149	0.037	0.579	0.500	108.

LCS Limit: 80% - 120% Recovery Spike Limit: 75% - 125% Recovery

LCS Duplicate Data

Analyte	Sample ID	Original Conc. mg/L	Replicate Conc. mg/L	RPD
Cl	LCS-Duplicate	0.517	0.519	0.39
NO3	LCS-Duplicate	0.530	0.519	2.10

RPD = {(sample-duplicate)/[(sample+duplicate)/2]}x100 Duplicate Limit: 20% RPD

QA/QC Report

Client Name: SMAQMD
Project Number: S061
Analytical Technique: Ion Chromatography
Instrument: Thermo ICS-5000
Sample Description: 47mm Teflon
Report Number: 23-451

LCS Duplicate Data (continued)

Analyte	Sample ID	Original Conc. mg/L	Replicate Conc. mg/L	RPD
SO4	LCS-Duplicate	0.551	0.524	5.02
Na	LCS-Duplicate	0.520	0.514	1.16
NH4	LCS-Duplicate	0.560	0.546	2.53
K	LCS-Duplicate	0.529	0.521	1.52

RPD = {(sample-duplicate)/[(sample+duplicate)/2]}x100 Duplicate Limit: 20% RPD

QA/QC Report

Client Name: Sacromento Metro AQMD
Project Number: S061
Analytical Technique: IMPROVE_A
Sample Description: 47mm Quartz
Report Number: 23-451
==========

Calibration QC

OC/EC Split*

Split ID: 11Q1121 Date run	Average %OC of 20 data points	%OC Measured	Control Limits
9/21/23	67.61	70.16%	60.85 - 74.37%
9/21/23	67.61	67.05%	60.85 - 74.37%

**Note: the Split is composed of a "real world" 8"x10"sample (406 cm^2 deposit area) that the laboratory has visually inspected for homogeneity of deposit. The laboratory attempts to characterize the %OC by analyzing twenty 1.5 cm^2 sample aliquots. A split may be outside of the "control limits" if the sample is not completely homogenous, but still be considered "passing" as long as the result is not significantly off from those limits.*

Sucrose Standard

Date run	Sucrose Std. Conc. µg/cm²	Measured Conc. µg/cm²	Percent Recovery
9/21/23	28.07	26.88	95.8

Sucrose Standard Control Limits: 90 - 110% recovery

Blank Data

Date run	Analyte	Measured Conc. µg/cm²	MDL µg/cm²
9/21/23	OC	<MDL	0.2
	EC	<MDL	0.2
9/21/23	OC	<MDL	0.2
	EC	<MDL	0.2

Duplicate Data

Sample ID	Analyte	Sample Conc. µg/cm²	Duplicate Conc. µg/cm²	RPD
23-U411	OC	2.64	2.47	6.7
	EC	0.00	0.01	-
	TC	2.64	2.48	6.3
23-U413	OC	2.95	3.36	13.0
	EC	0.16	0.00	-
	TC	3.12	3.36	7.4
23-U424	OC	1.83	1.79	2.2
	EC	0.00	0.00	-
	TC	1.83	1.79	2.2

Duplicate Control Limits: ± 20% RPD
RPD = [(sample - duplicate)/(sample + duplicate)/2] x 100
Control limits do not apply where result <5x Detection Limit

23-451

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CHAIN-OF-CUSTODY RECORD

For use by Lab:
Report #:

Page_1_of _1_COCs

CLIENT INFORMATION

Company Name: Sacramento Metropolitan AQMD

Contact: Levi Ford | Email: lford@airquality.org

Cell: 916-307-0505 | Office: 279-207-1122

Report To: Levi Ford_____
777 12th Street
Sacramento CA, 95814

Billing Address:_777 12th Street_____
Sacramento CA, 95814

Project Name: AB617

Contract 2022-00000024-A

Turn Around Time Requested
☑ Standard
☐ Rush (Specify)_____

10.9°

LabNet ID	Field Sample ID	Site	Sample Date	Volume (m^3)	Particle Size (mm)	Gravimetry	XRF	IC	ICP	OC/EC				Sample Specific Notes:
23-T2085	Canister SMAQMD 01_02	617Fern	08/10/23	9.703	2.5	X	X	X						
23-T2086	Canister SMAQMD 02_02	617Fern	08/16/23	9.704	2.5	X	X	X						
23-TU411	Canister SMAQMD 05_02	617Fern	08/10/23	9.708	2.5					X				
23-U412	Canister SMAQMD 13	617Fern	08/16/23	9.704	2.5					X				

Do the samples pose any potential hazards? ☐ Yes ☑ No
If yes please explain:

Are samples for compliance? ☐ Yes ☑ No

Special Instructions/QC Requirements & Comments:

Sample Load: G. Rico	Date/Time: 08/08/23 10:00	Sample Removal: G. Rico	Date/Time/~~Temp~~: 08/17/23 15:00
Relinquished by: G. Rico	Date/Time: 08/23/23 11:30	Received By: [signature]	Date/Time/Temp: 8/24/23 11:20 am

Laboratory Receipt Comments:

SMAQMD SASS Air Sampler Data Record Sheet

Site Name: 617 Fern **Sampling Date: 08/10/2023**

	Channel	**1**	**2**
Filter and Run Time	Lab Net ID	23-T2085	23-U411
	Field ID	Canister SMAQMD 01_02	Canister SMAQMD 05_02
	Sample Date	8/10/2023	8/10/2023
	Start Date/Time	8/10/2023 0:00	8/10/2023 0:00
	End Date/Time	8/11/2023 0:00	8/11/2023 0:00
	Retrieval Date/Time	8/11/2023 14:00	8/11/2023 14:00
	Run Time (hrs)	24.00	24.00
Event Information	Sample Volume (m3)	9.703	9.708
	Avg CV (%)	0.7	0.7
	Avg. Flow (l/min)	6.7	6.7
	Avg Ambient T (°C)	30.0	30.0
	Max Ambient T (°C)	32.5	32.5
	Min Ambient T (°C)	14.0	14.0
	Avg Filter T (°C)	29.5	29.6
	Max Filter T (°C)	32.5	32.5
	Min Filter T (°C)	15.6	15.6
	Avg. BP (mmHg)	759.0	759.0
	Max BP (mm Hg)	760.0	760.0
	Min BP (mmHg)	757.0	757.0

SMAQMD SASS Air Sampler Data Record Sheet

Site Name: 617 Fern **Sampling Date: 08/16/2023**

	Channel	**1**	**2**
Filter and Run Time	Lab Net ID	23-T2086	23-U412
	Field ID	Canister SMAQMD 02_02	Canister SMAQMD 13
	Sample Date	8/16/2023	8/16/2023
	Start Date/Time	8/16/2023 0:00	8/16/2023 0:00
	End Date/Time	8/17/2023 0:00	8/17/2023 0:00
	Retrieval Date/Time	8/17/2023 10:00	8/17/2023 10:00
	Run Time (hrs)	24.00	24.00
Event Information	Sample Volume (m3)	9.704	9.704
	Avg CV (%)	0.8	0.7
	Avg. Flow (l/min)	6.74	6.74
	Avg Ambient T (°C)	28.1	28.1
	Max Ambient T (°C)	39.4	39.4
	Min Ambient T (°C)	19.2	19.2
	Avg Filter T (°C)	26.9	27.1
	Max Filter T (°C)	41.5	41.5
	Min Filter T (°C)	19.3	19.3
	Avg. BP (mmHg)	758.0	758.0
	Max BP (mm Hg)	757.0	757.0
	Min BP (mmHg)	756.0	756.0

23-451

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CHAIN-OF-CUSTODY RECORD

For use by Lab:
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Report To: Levi Ford
777 12th Street
Sacramento CA, 95814

Billing Address: 777 12th Street
Sacramento CA, 95814

Project Name: AB617

Contract 2022-00000024-A

Turn Around Time Requested
- [x] Standard
- [ ] Rush (Specify)

LabNet ID	Field Sample ID	Site	Sample Date	Volume (m^3)	Particle Size (mm)	Gravimetry	XRF	IC	ICP	OC/EC				Sample Specific Notes:
23-T2087	Canister SMAQMD 04_02	617Fern	08/22/23	9.686	2.5	X	X	X						
23-T2149	Canister SMAQMD 07_02	617Fern	08/28/23	9.701	2.5	X	X	X						
23-~~TU423~~ U413	Canister SMAQMD 14	617Fern	08/22/23	9.701	2.5					X				
23-U423	Canister SMAQMD 10_02	617Fern	~~08/16/23~~ 8/28/23	9.704	2.5					X				

Do the samples pose any potential hazards? [ ] Yes [x] No
If yes please explain:

Are samples for compliance? [ ] Yes [x] No

Special Instructions/QC Requirements & Comments:

Sample Load: G. Rico	Date/Time: 08/18/23 13:00	Sample Removal: 08/29/23 GR G. Rico	Date/Time/Temp: 08/29/23 13:00
Relinquished by: G. Rico	Date/Time: 09/05/23 09:00	Received By: [signature]	Date/Time/Temp: 9-6-23 0930

Laboratory Receipt Comments:

CHESTER LabNet

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CHAIN-OF-CUSTODY RECORD

For use by Lab:
Report #:

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Contract 2022-00000024-A

Turn Around Time Requested

☑ Standard
☐ Rush (Specify)_____

LabNet ID	Field Sample ID	Site	Sample Date	Volume (m^3)	Particle Size (mm)	Gravimetry	XRF	IC	ICP	OC/EC				Sample Specific Notes:
23-T2087	Canister SMAQMD 04_02	617Fern	08/22/23	9.686	2.5	X	X	X						
23-T2149	Canister SMAQMD 07_02	617Fern	08/28/23	9.701	2.5	X	X	X						
23-TU423	Canister SMAQMD 14	617Fern	08/22/23	9.701	2.5					X				
23-U423	Canister SMAQMD 10_02	617Fern	08/16/23	9.704	2.5					X				

Do the samples pose any potential hazards? ☐ Yes ☑ No
If yes please explain:

Are samples for compliance? ☐ Yes ☑ No

Special Instructions/QC Requirements & Comments:

Sample Load: G. Rico	Date/Time: 08/18/23 13:00	Sample Removal: 08/29/23 GR G. Rico	Date/Time/Temp: 08/29/23 13:00
Relinquished by: G. Rico	Date/Time: 09/05/23 09:00	Received By: [illegible]	Date/Time/Temp: 9.6.23 0930 6.6°C

Laboratory Receipt Comments:

SMAQMD SASS Air Sampler Data Record Sheet

Site Name: 617 Fern **Sampling Date: 08/22/2023**

	Channel	**1**	**2**
Filter and Run Time	Lab Net ID	23-T2087	23-U413
	Field ID	Canister SMAQMD 04_02	Canister SMAQMD 14
	Sample Date	8/22/2023	8/22/2023
	Start Date/Time	8/22/2023 0:00	8/22/2023 0:00
	End Date/Time	8/23/2023 0:00	8/23/2023 0:00
	Retrieval Date/Time	8/23/2023 13:30	8/23/2023 13:30
	Run Time (hrs)	24.00	24.00
Event Information	Sample Volume (m3)	9.686	9.701
	Avg CV (%)	0.8	0.7
	Avg. Flow (l/min)	6.72	6.73
	Avg Ambient T (°C)	30.9	30.9
	Max Ambient T (°C)	30.2	30.2
	Min Ambient T (°C)	17.1	17.1
	Avg Filter T (°C)	25.1	25.1
	Max Filter T (°C)	33.8	33.7
	Min Filter T (°C)	18.0	18.0
	Avg. BP (mmHg)	759.0	759.0
	Max BP (mm Hg)	762.0	762.0
	Min BP (mmHg)	759.0	759.0

SMAQMD SASS Air Sampler Data Record Sheet

Site Name: 617 Fern **Sampling Date: 08/28/2023**

	Channel	**1**	**2**
Filter and Run Time	Lab Net ID	23-T2149	23-U423
	Field ID	Canister SMAQMD 07 _02	Canister SMAQMD 10_02
	Sample Date	8/28/2023	8/28/2023
	Start Date/Time	8/28/2023 0:00	8/28/2023 0:00
	End Date/Time	8/29/2023 0:00	8/29/2023 0:00
	Retrieval Date/Time	8/30/2023 12:15	8/30/2023 12:15
	Run Time (hrs)	24.00	24.00
Event Information	Sample Volume (m3)	9.701	9.704
	Avg CV (%)	0.8	0.8
	Avg. Flow (l/min)	6.73	6.74
	Avg Ambient T (°C)	27.6	27.6
	Max Ambient T (°C)	34.2	34.2
	Min Ambient T (°C)	16.4	16.4
	Avg Filter T (°C)	24.5	24.5
	Max Filter T (°C)	37.1	37.1
	Min Filter T (°C)	17.0	17.0
	Avg. BP (mmHg)	758.0	758.0
	Max BP (mm Hg)	761.0	761.0
	Min BP (mmHg)	758.0	758.0

23-451

CHESTER LabNet

12242 SW Garden Place ♦ Tigard, OR 97223 ♦ (503) 624-2183 ♦ www.chesterlab.net ♦ cln@chesterlab.net

CHAIN-OF-CUSTODY RECORD

For use by Lab:
Report #:

Page_1_of _1_COCs

CLIENT INFORMATION

Company Name: Sacramento Metropolitan AQMD

Contact: Levi Ford | Email: lford@airquality.org

Cell: 916-307-0505 | Office: 279-207-1122

Report To: Levi Ford_____
777 12th Street
Sacramento CA, 95814

Billing Address:_777 12th Street_____
Sacramento CA, 95814

Project Name: AB617

Contract 2022-00000024-A

Turn Around Time Requested

☑ Standard
☐ Rush (Specify)_____

LabNet ID	Field Sample ID	Site	Sample Date	Volume (m^3)	Particle Size (mm)	Gravimetry	XRF	IC	ICP	OC/EC				Sample Specific Notes:
23-T2150	Canister SMAQMD 08_02	617Fern	09/03/23	9.710	2.5	X	X	X						
23-T2151	Canister SMAQMD 09_02	617Fern	09/09/23	9.701	2.5	X	X	X						
23-U424	Canister SMAQMD 11_02	617Fern	09/03/23	9.712	2.5					X				
23-U425	Canister SMAQMD 12_02	617Fern	09/09/23	9.709	2.5					X				

Do the samples pose any potential hazards? ☐ Yes ☑ No
If yes please explain:

Are samples for compliance? ☐ Yes ☑ No

Special Instructions/QC Requirements & Comments:

Sample Load: G. Rico	Date/Time: 8/31/23 12:00	Sample Removal: 09/13/23	Date/Time/Temp: 12:00 –
Relinquished by: G. Rico	Date/Time: 9/14/23 09:00	Received By: [signature] -1°C	Date/Time/Temp: 9/15/23 9:30

Laboratory Receipt Comments:

SMAQMD SASS Air Sampler Data Record Sheet

Site Name: 617 Fern **Sampling Date: 09/03/23**

	Channel	**1**	**2**
Filter and Run Time	Lab Net ID	23-T2150	23-U424
	Field ID	Canister SMAQMD 08 _02	Canister SMAQMD 11_02
	Sample Date	9/3/2023	9/3/2023
	Start Date/Time	9/3/2023 0:00	9/3/2023 0:00
	End Date/Time	9/4/2023 0:00	9/4/2023 0:00
	Retrieval Date/Time	9/5/2023 12:00	9/5/2023 12:00
	Run Time (hrs)	24.00	24.00
Event Information	Sample Volume (m3)	9.710	9.712
	Avg CV (%)	0.7	0.7
	Avg. Flow (l/min)	6.74	6.74
	Avg Ambient T (°C)	21.1	21.1
	Max Ambient T (°C)	24.7	24.7
	Min Ambient T (°C)	15.5	15.5
	Avg Filter T (°C)	20.4	20.4
	Max Filter T (°C)	27.2	27.2
	Min Filter T (°C)	16.5	16.5
	Avg. BP (mmHg)	762.0	762.0
	Max BP (mm Hg)	763.0	763.0
	Min BP (mmHg)	761.0	761.0

SMAQMD SASS Air Sampler Data Record Sheet

Site Name: 617 Fern **Sampling Date: 09/09/23**

	Channel	**1**	**2**
Filter and Run Time	Lab Net ID	23-T2151	23-U425
	Field ID	Canister SMAQMD 09 _02	Canister SMAQMD 12_02
	Sample Date	9/9/2023	9/9/2023
	Start Date/Time	9/9/2023 0:00	9/9/2023 0:00
	End Date/Time	9/10/2023 0:00	9/10/2023 0:00
	Retrieval Date/Time	9/13/2023 12:00	9/13/2023 12:00
	Run Time (hrs)	24.00	24.00
Event Information	Sample Volume (m3)	9.701	9.709
	Avg CV (%)	0.7	0.8
	Avg. Flow (l/min)	6.73	6.74
	Avg Ambient T (°C)	27.6	27.6
	Max Ambient T (°C)	31.6	31.6
	Min Ambient T (°C)	16.1	16.1
	Avg Filter T (°C)	27.9	27.9
	Max Filter T (°C)	34.3	34.3
	Min Filter T (°C)	17.1	17.1
	Avg. BP (mmHg)	761.0	761.0
	Max BP (mm Hg)	763.0	763.0
	Min BP (mmHg)	760.0	760.0

RAW DATA

Available upon request