CleanAir Workshops series 023

Dust Monitoring Compliance

Thursday, September 14, 2023

Morning Program

9:00 Welcome

9:05 Overview and Updates of CDPH Regulatory and Community Air Monitoring Approaches
Michael Enos, CDPH

9:40 Regional and National Regulatory Overview
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12:00 **LUNCH**

The Met-SCS

September 14, 2023

AEROQUAL TOTAL VOC MONITOR

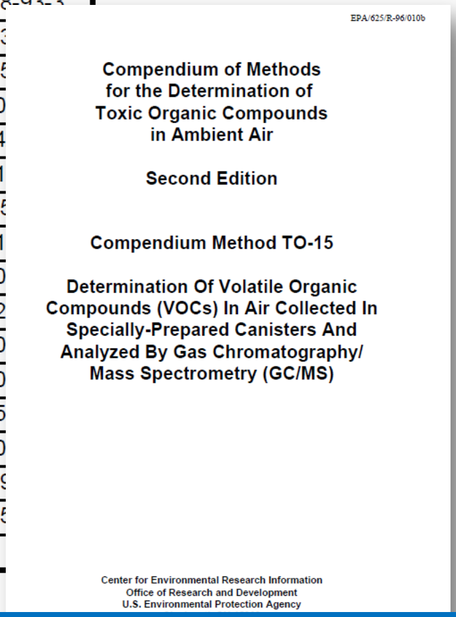
- Photoionization Detector (PID): sensitive, non-speciating detector.
- Does **NOT** respond to methane, ethane, or propane
- Responds to a large variety of inorganic and organic compounds including BTEX
- Lower Detection Limit: 1 ppb (Isobutylene)
- Automatic baseline correction to correct for cross interferences and minimize drift
- Actively pumped and supports conventional QA (bump test with zero and span gas)

VOC SPECIATION

Table

Toxics Monitoring Analyte List by Analysis Type			
TO-15 Analyte List (Toxic VOC)			
Analyte	CAS#	Analyte	CAS#
1,1,1-Trichloroethane	71-55-6	Chloroethane	75-00-3
1,1,2,2-Tetrachloroethane	79-34-5	Chloroethene (vinyl chloride)	75-01-4
1,1,2-Trichloroethane	79-00-5	Chloroform	67-66-3
1,1,2-Trichlorotrifluoroethane	76-13-1	Chloromethane	74-87-3
1,1-Dichloroethane	75-34-3	cis-1,2-Dichloroethene	156-59-2
1,1-Dichloroethene	75-35-4	cis-1,3-Dichloropropene	10061-01-5
1,2,4-Trichlorobenzene	120-82-1	Cyclohexane	110-82-7
1,2,4-Trimethylbenzene	95-63-6	Dibromochloromethane	124-48-1
1,2-Dibromoethane	106-93-4	Dichlorodifluoromethane	75-71-8
1,2-Dichlorobenzene	95-50-1	Ethylbenzene	100-41-4
1,2-Dichloroethane	107-06-2	Hexachlorobutadiene	87-68-3
1,2-Dichloropropane	78-87-5	m/p-Xylene	108-38-3
1,2-Dichlorotetrafluoroethane	76-14-2	MEK	78-93-3
1,3,5-Trimethylbenzene	108-67-8	Methyl Tert-Butyl Ether	163
1,3-Butadiene	106-99-0	Methylene Chloride	75
1,3-Dichlorobenzene	541-73-1	MIBK	10
1,4-Dichlorobenzene	106-46-7	n-Heptane	14
1-Bromopropane	106-94-5	n-Hexane	11
1-Ethyl-4-methylbenzene	622-96-8	o-Xylene	95
2-Hexanone	591-78-6	Propene	11
Acetone	67-64-1	Styrene	10
Acrolein	107-02-8	Tetrachloroethene	12
Benzene	71-43-2	Tetrahydrofuran	10
Bromodichloromethane	75-27-4	Toluene	10
Bromoform	75-25-2	trans-1,2-Dichloroethene	15
Bromomethane	74-83-9	trans-1,3-Dichloropropene	100
Carbon Disulfide	75-15-0	Trichloroethene	79
Carbon Tetrachloride	56-23-5	Trichlorofluoromethane	75
Chlorobenzene	108-90-7		

Benzene


EPA/625/R-96/010b

Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air

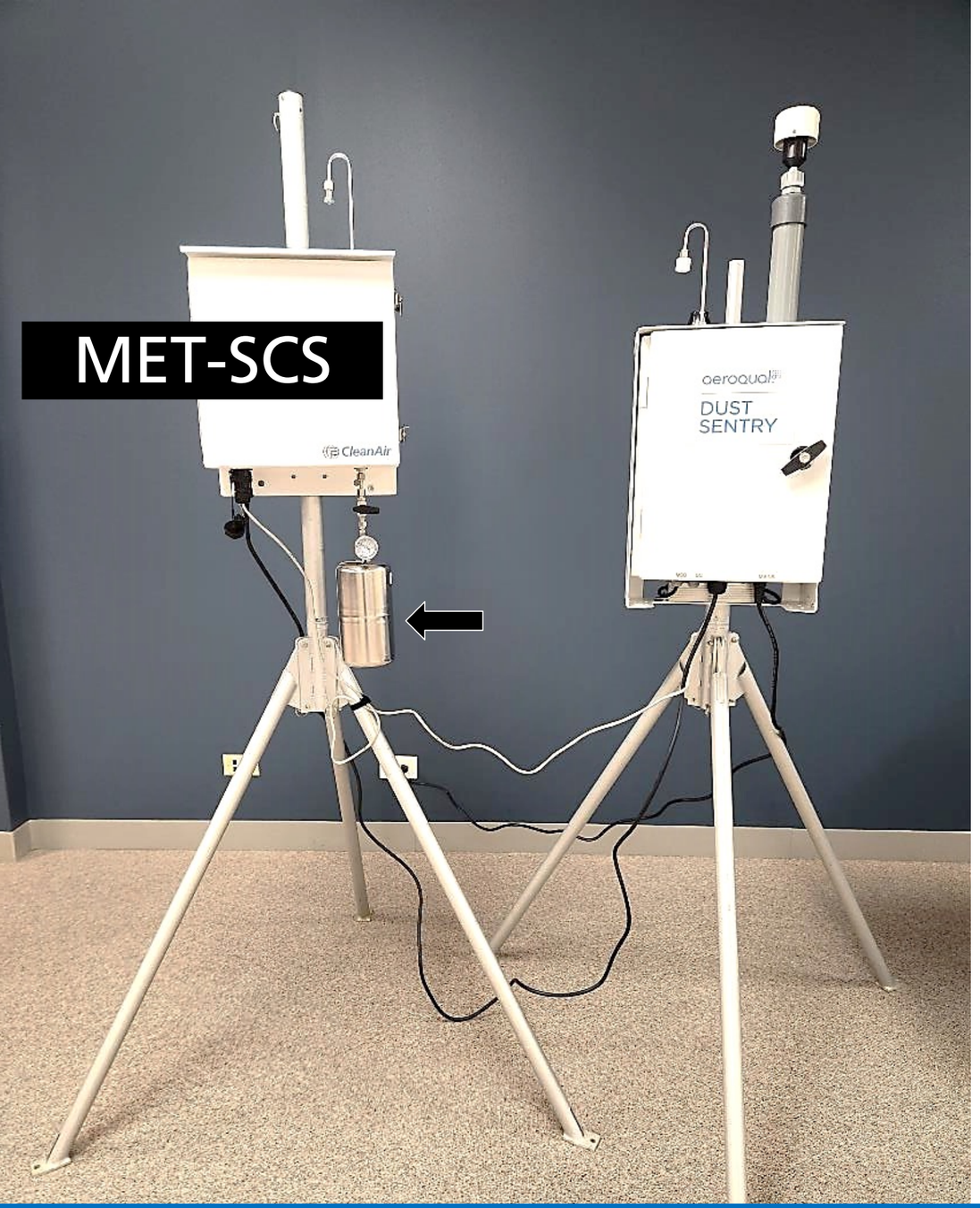
Second Edition

Compendium Method TO-15

Determination Of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters And Analyzed By Gas Chromatography/ Mass Spectrometry (GC/MS)

Center for Environmental Research Information
Office of Research and Development
U.S. Environmental Protection Agency


Background SUMMA-20
CleanAir
ENGINEERING



MET-SCS HIGHLIGHTS

- Powered via the Aeroqual host (12 VDC)
- Communication with host via connectAPI (Ethernet cable)
- Custom trigger level based on PID value
- Allows for selection of various sampling durations: 5, 15, 30, 60 min (grab sampling)
- Protects from oversampling by monitoring Summa can vacuum
- Vacuum reading is fed back into the Aeroqual host for remote cloud-based monitoring of sampling progress and alarming

MET-SCS HIGHLIGHTS CONTINUED…

- Silco-treated stainless steel for the entire flow path
- Silco-treated stainless steel filter
- Silco-treated stainless steel latching valve (low power operation)
- Vacuum sensor with 316SS diaphragm
- OLED display and keypad for user interaction, run configuration, and guided can replacement

MET-SCS HIGHLIGHTS CONTINUED…

- Accommodates various can sizes including 1.4 L and 6 L Summa cans
- Connection via ¼ inch Swagelock fitting

CLEANAIR BTU

CleanAir BTU

Span and Zero Gas Bump Test Unit

The CleanAir Engineering BTU performs automatic bump tests at user-defined time intervals and concentrations, using integrated span and zero gas disposable 6D or 8AL cylinders.

Housed in a durable, weather-proof enclosure, the BTU is engineered for use with various air monitors, in most applications requiring bump testing. After initial on-site set-up, track the BTU's performance remotely and set custom alerts using Aeroqual Cloud.

- ✓ **Available for Sale or Rent**
- ✓ **World-Class Technical Support from CleanAir**
- ✓ **Full Inspection on Every CleanAir Rental**
- ✓ **Equipment Repair and Calibration Services**

TECHNICAL SPECIFICATIONS	
TEST INTERVAL RANGE	15 min. - 72 hr. (User Defined)
SPAN GASES AVAILABLE	0.5, 1, and 25 ppm
GAS CYLINDER SIZE	6D or 8AL
MEASURING RANGE	0-30 ppm
RESOLUTION	0.01 ppm
FLOW RATE	100 cc
POWER	12VDC or Powered from Aeroqual Monitors
MOUNTING	Pole Mount or Free-Standing
TEMPERATURE RANGE	-10 °F to 105 °F
DIMENSIONS (DxWxH)	6" x 10" x 26"
WEIGHT	15 lb

Bump Test Module | Aeroqual Cloud

KEY FEATURES

- User-Defined run times
- User-Defined run intervals
- Can be powered from Aeroqual monitors

APPLICATIONS

- Fenceline Monitoring
- Regulatory Compliance
- Remote locations
- Budget-Conscious studies
- Long-Term installations

Related Products Available from CleanAir

Performance Beyond Measure, since 1972. Unparalleled technical support, equipment rental, sales and servicing in Chicago, Houston, Pittsburgh, and Marseille, France

www.cleanair.com | info@cleanair.com | 1-800-553-5511

METHANE MONITORING

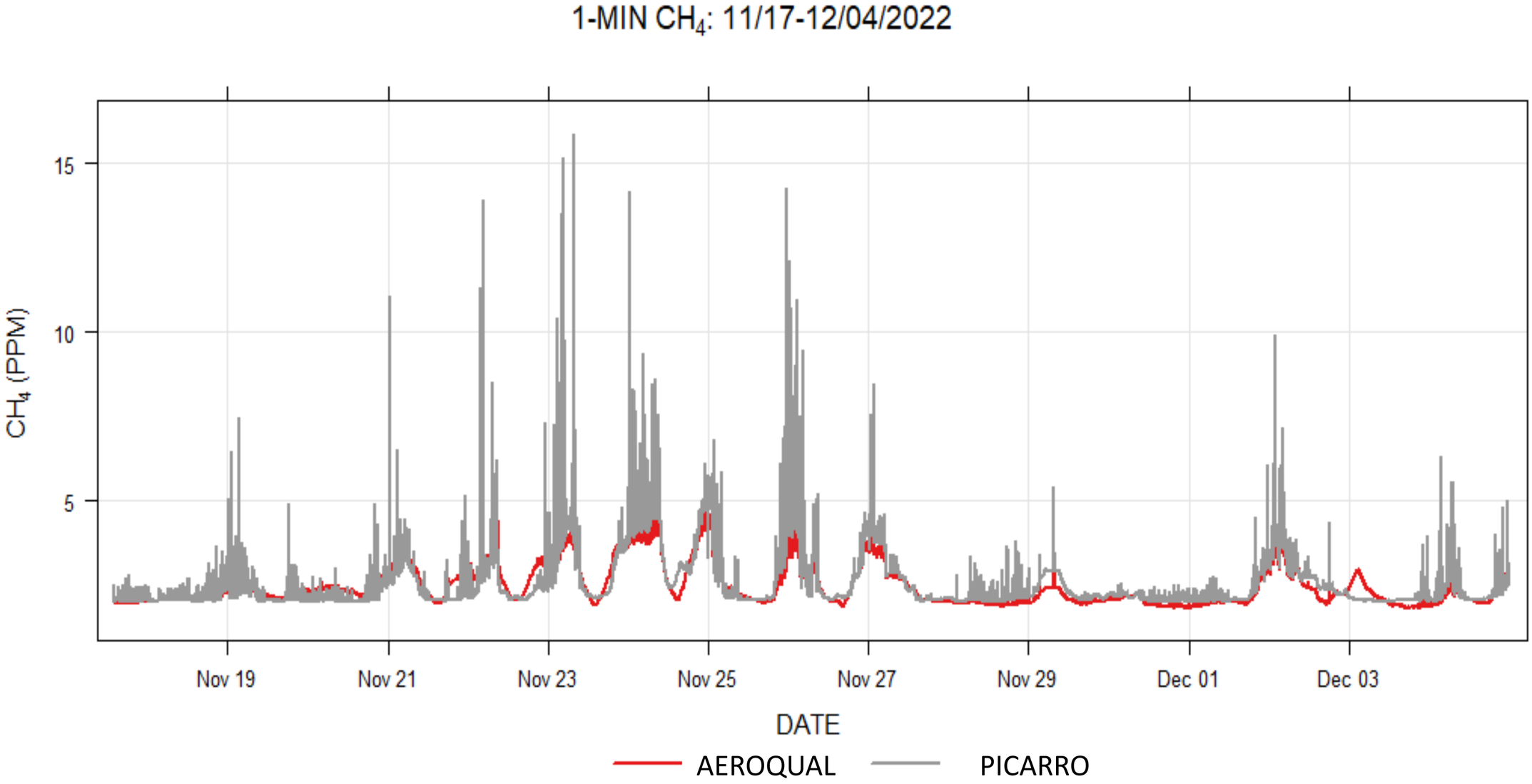
September 14, 2023

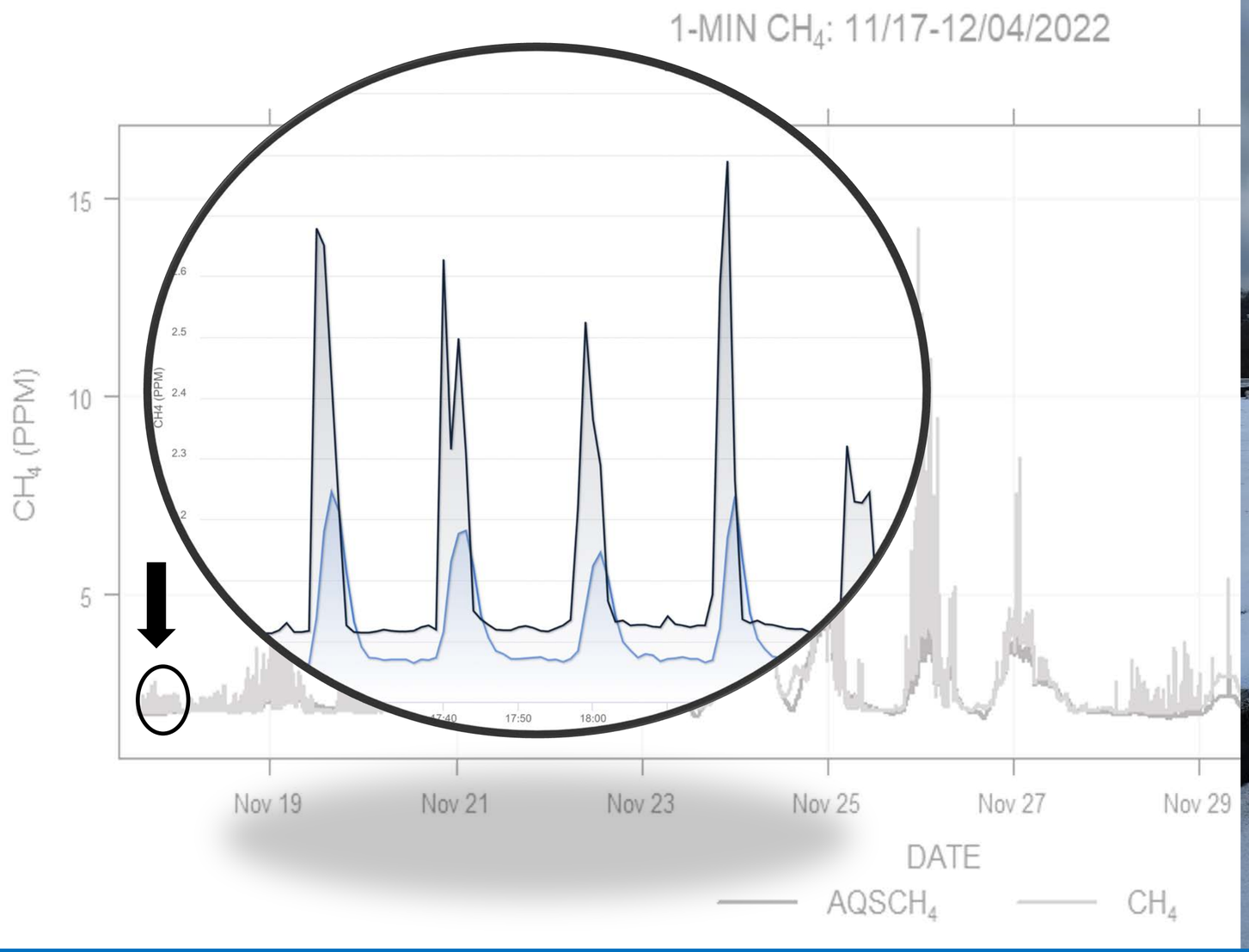
SMALL SENSOR SYSTEM

- Responds to CH4 and other gases
- CH4 Range: 0-50 ppm
- Precision (1 min): 0.5 ppm

SIDE-BY-SIDE TESTING

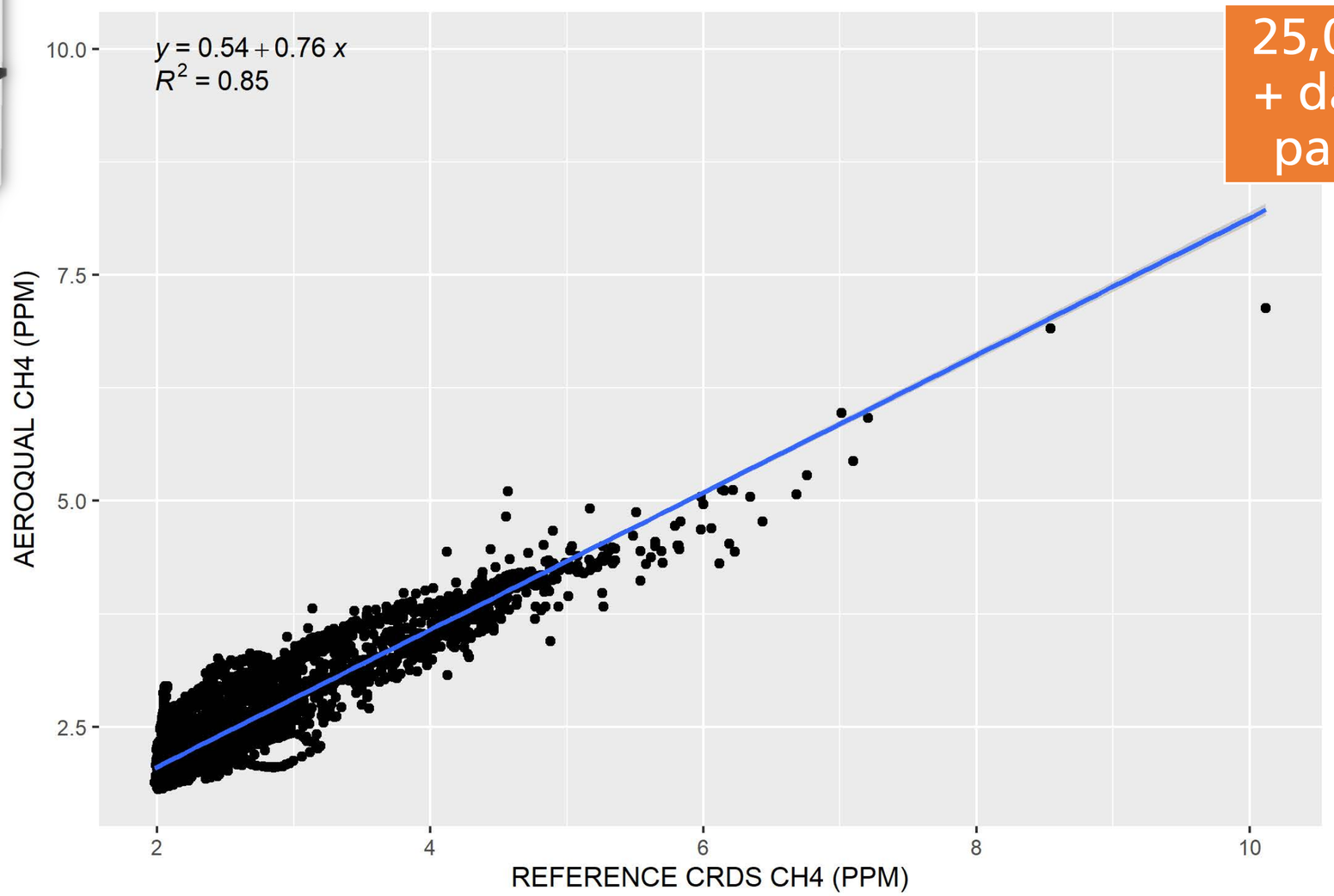
- CH4 Range: 0-800 ppm
- Precision (1 sec): 3 ppb


1-MIN CH4: 11/17-12/04/2022
CH4 (PPM)
15
10
5
Nov 19
Nov 21
Nov 23
Nov 25
Nov 27
Nov 29
Dec 01
Dec 03
DATE
AEROQUAL
PICARRO


1-MIN CH4: 11/17-12/04/2022
CH4 (PPM)
15
10
5
Nov 19
Nov 21
Nov 23
Nov 25
Nov 27
Nov 29
DATE
AQSCH4
CH4
2.6
2.5
2.4
2.3
2
17:40
17:50
18:00


Boiler Vent

5-MIN AVERAGE DATA PLOT



25,000 + data pairs

PICARRO

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