



Air Resources Board



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Secretary for
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TECHNICAL BULLETIN 408-01A

**PM10 SSI HI VOLUME SAMPLER
September 2013**

Issue

The Monitoring and Laboratory Division's (MLD) Inorganics Section is implementing a PM10 Size Selective Inlet Hi Volume (Hi-Vol) sampler field blank program. The Hi-Vol field blank program is in response to a recent U.S. EPA Technical Systems Audit.

Solution

This technical bulletin describes field procedures to properly collect a field blank for the PM10 SSI Hi Volume sampler. These procedures will also be incorporated into ASQB SOP 408.

Procedure

Effective July 1, 2013, ARB's MLD will begin collecting PM10 SSI Hi-Vol filter blanks. The laboratory will initially collect one field blank per quarter. Therefore, the third quarter 2013 filter shipment will contain one extra filter. In the future the laboratory may issue more field blanks per quarter.

The Hi-Vol sampler field blank must be used sometime during the filter packet's designated quarter. Although the field blank can be sampled at any time during the quarter, site operators should collect the field blank as early in the quarter as possible to minimize laboratory backlogs.

During a normal sample loading or retrieval day, prepare a Hi-Vol field blank sample in accordance with AQSB SOP 408 section 2.2 "Pre-Run Procedure". Take the Hi-Vol field blank filter to sampler.

If collecting a previously run sample, follow procedures stated in AQSB SOP 408 section 2.3 "Post-Run Procedure" and remove the exposed sample from the sampler.

Place the field blank on the sampler and secure using the four swing bolt/nuts.

Close the Hi-Vol Size Selective Inlet hinged top but do not tighten the sample head into place.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

Leave the field blank filter in place for 5 minutes. **DO NOT TURN ON THE SAMPLER.** Open the SSI and remove the field blank filter. Cover the field blank with filter cassette to prevent contamination. Load Hi-Vol sampler with next scheduled sample and proceed to the station.

Remove the Hi-Vol field blank filter from the filter cartridge holder, fold filter in half and place it in the glassine envelope supplied with the field blank filter.

Complete the associated 24-hour sample report/sample tracking form (see attachment for an example). The sample report will be completed in the same manner as a normal sample with the following exceptions.

1. The start date and time will be the moment the filter is placed on the sampler.
2. The finish date and time will be the moment the filter is removed from the sampler, at minimum 5 minutes later than the start date and time.
3. The start, finish and net elapsed time meter fields will be left blank.
4. The “Average Std Flow (scfm)” and the “Average Ind. Flow Rate” fields will be 0.00.
5. Leave the “Indicated Flow Rate, Ta, and Pa fields blank.
6. Write **FIELD BLANK** in the field comments section of the sample report.

The Hi-Vol field blank should be mailed back to the laboratory within 30 days from “use”.

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CALIFORNIA AIR RESOURCES BOARD
Volumetric PM10 24-Hour Sample Report/Sample Tracking

SAMPLE NO. (FILTER PAPER NO.)
 581706

Station Name: Sacramento -T St.

COUNTY:

3	4
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 SITE:

0	0	3	0	5
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 AGENCY:

A

Station Address: 1927 13th St

Project Name (If Applicable): N/A

INSTRUMENT NO.:

1	2	3	4	5
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Station Operator/Agency: Quok/ARB Phone No: _____

SAMPLING CONDITIONS

LOCAL CONDITION CODES (ENTER APPROPRIATE CODE IN THE BOX AT LEFT)

* - NO UNUSUAL CONDITIONS	J - CONSTRUCTION NEARBY	P - ROOFING OPERATIONS
A - HIGH WINDS	K - FARMING NEARBY	Q - PRESCRIBED BURN
E - FOREST FIRE	L - HIGHWAY CONSTRUCTION	X - RAIN
F - STRUCTURAL FIRE	N - SANDING/SALTING STREETS	Y - SNOW
		Z - OTHER (Explain in Field Comments)

SAMPLE COLLECTION DATA										DATE OF LAST CALIBRATION								
	DATE			TIME		ELAPSED TIME METER (MIN.)	FILTER PAPER WEIGHT (GRAMS)				YEAR	MONTH		DAY				
	YEAR	MONTH	DAY	HOURS	MIN.													
FINISH	1	3	0	3	1	1	0	9	0	5								
START	1	3	0	3	1	1	0	9	0	0	4	.	4	8	4	5		
NET:										AVERAGE STD FLOW (SCFM): <table border="1"><tr><td>0</td><td>0</td><td>.</td><td>0</td></tr></table>					0	0	.	0
0	0	.	0															
INDICATED FLOW RATE										AVERAGE IND. FLOW RATE: <table border="1"><tr><td>0</td><td>0</td><td>.</td><td>0</td></tr></table>					0	0	.	0
0	0	.	0															

Pd(I)

.	.	.
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 in. Pd(F)

.	.	.
---	---	---

 in. Ta

.	.	.
---	---	---

 °C Pa

.	.	.
---	---	---

 mmHg

Type of Sample: Regular Collocate Make up

TO BE COMPLETED BY SAMPLER OPERATORS:

- Inspection of sampler and filter indicates that sample collected is in compliance with quality control standards for sampling. Filter and Dickson recorder chart enclosed.
 - Sample does not meet quality control standards for sampling and should be invalidated. Dickson recorder chart and filter enclosed. Make up sample scheduled for _____
- Reasons:
- | | | |
|---|---|---|
| <input type="checkbox"/> Filter Contaminated or Damaged | <input type="checkbox"/> High/Low Flowrate | <input type="checkbox"/> Erratic Flowrate |
| <input type="checkbox"/> Power Outage | <input type="checkbox"/> Dickson Chart Recorder Problem | <input type="checkbox"/> Timer Problem |
| <input type="checkbox"/> Other | | |

Field Comments: FIELD BLANK

Sample Tracking

Action	Transfer Method (Check One)		Name & Initials	Date/Time
	Carrier	Person		
Released by Field	X		Matt Quok MQ	3/12/2013 10:00
Received by Lab				

====FOR LABORATORY USE ONLY====

LIMS Sample ID: _____

Sample Conditions upon Received: _____

Lab Comments: _____

	PRE-ANA.	POST-ANA.
Initials	DDT	
Date	2/12/13	