

COMPREHENSIVE VALIDATION PACKAGE

ATL Applications

INVENTORY SHEET

WORK ORDER # 0908457C

	Page Nos.	
	From	To
1. Work Order Cover Page & Laboratory Narrative & Table	1	4
2. Sample Results and Raw Data (Organized By Sample)	5	8
a. ATL Sample Results Form		
b. Target Compound Raw Data		
-Internal Standard Area and Retention Time Summary (If Applicable)		
-Surrogate Recovery Summary (If Applicable)		
-Chromatogram(s) and Ion Profiles (If Applicable)		
3. QC Results and Raw Data		
a. Method Blank (Results + Raw Data)	-	-
b. Surrogate Recovery Summary Form (If Applicable)	-	-
c. Internal Standard Summary Form (If Applicable)	-	-
d. Duplicate Results Summary Sheet	-	-
e. Matrix Spike/Matrix Spike Duplicate (Results + Raw Data)	-	-
f. Initial Calibration Data (Summary Sheet + Raw Data)		
g. MDL Study (If Applicable)	-	-
h. Continuing Calibration Verification Data		
i. Second Source LCS (Summary + Raw Data)	-	-
j. Extraction Logs	-	-
k. Instrument Run Logs/Software Verification	9	12
l. GC/MS Tune (Results + Raw Data)	-	-
4. Shipping/Receiving Documents:		
a. Login Receipt Summary Sheet	13	14
b. Chain-of-Custody Records	15	16
c. Sample Log-In Sheet	17	18
d. Misc. Shipping/Receiving Records (list individual records)		
<u>Sample Receipt Discrepancy Report</u>	19	21
5. Other Records (describe or list)		
a. <u>Manual Spectral Defense</u>	-	-
b. <u>Manual Intergrations</u>	-	-
c. <u>Manual Calculations</u>	-	-
d. <u>Canister Dilution Factors</u>	-	-
e. <u>Laboratory Corrective Action Request</u>	-	-
f. <u>CAS Number Reference</u>	22	23
g. <u>Variance Table</u>	-	-
h. <u>Canister Certification</u>	-	-
i. <u>Data Review Check Sheet</u>	24	24

Completed by:

Kara McKiernan

(Signature)

Kara McKiernan/ Document Control

(Print Name & Title)

09/17/09

(Date)

WORK ORDER #: 0908457C

Work Order Summary

CLIENT:	Mr. Taeko Minegishi Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	BILL TO:	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
PHONE:	800-825-5343	P.O. #	16512
FAX:	781-247-4305	PROJECT #	16512
DATE RECEIVED:	08/21/2009	CONTACT:	Ausha Scott
DATE COMPLETED:	09/16/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
41A	100696	ATL Applications
42A	100697	ATL Applications
43A	100337	ATL Applications
44A	100338	ATL Applications
45A	100339	ATL Applications
46A	100340	ATL Applications
47A	100341	ATL Applications
48A	100342	ATL Applications
49A	100187	ATL Applications
50A	100188	ATL Applications
51A	100190	ATL Applications
52A	100191	ATL Applications
53A	100243	ATL Applications
54A	100244	ATL Applications
55A	100245	ATL Applications
56A	100246	ATL Applications
56AA	100246 Lab Duplicate	ATL Applications

Continued on next page

WORK ORDER #: 0908457C

Work Order Summary

CLIENT:	Mr. Taeko Minegishi Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	BILL TO:	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
PHONE:	800-825-5343	P.O. #	16512
FAX:	781-247-4305	PROJECT #	16512
DATE RECEIVED:	08/21/2009	CONTACT:	Ausha Scott
DATE COMPLETED:	09/16/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
57A	100247	ATL Applications
57AA	100247 Lab Duplicate	ATL Applications
58A	100248	ATL Applications
59A	Method Blank	ATL Applications
59B	Method Blank	ATL Applications
60A	CCV	ATL Applications

CERTIFIED BY:



Laboratory Director

DATE: 09/16/09

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Nitrogen Dioxide by Radiello 166
Environmental Health & Engineering, Inc.
Workorder# 0908457C**

Nineteen Radiello 166 (NO₂) samples were received on August 21, 2009. The procedure involves extraction of nitrite from reaction of NO₂ with triethanolamine. Absorbance of nitrite is then measured at 537 nm using a spectrophotometer. Results are reported in uG and uG/m³.

Sampling rate of 141 mL/min was provided by the manufacturer.

Receiving Notes

A Temperature Blank was not included with the shipment. Temperature was measured on a representative sample and was not within 4±2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

Sample collection dates were not provided on the Chain of Custody for all samples. The client was contacted and a dates were provided.

Analytical Notes

Results were calculated based on 25 deg C without temperature correction. The actual exposure time was used to calculate sample concentrations and reporting limits.

An exposure time of 22,000 minutes was used for the QC samples and samples 100697, 100342 and 100248.

All media used for the sampling were supplied by the client. Blank subtraction was not performed on the sample results since the media used for Method Blanks may be from a different lot than the media used for the samples.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.
- N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Sample Results and Raw Data

AIR TOXICS LTD.
ATL Application # 61 for RAD 166 (Nitrogen Dioxide)
 Spectrophotometer

Field Sample ID.	Lab Sample ID.	Collection Date	Analysis Date	Dilution Factor	Reporting Limit (ug)	Reporting Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
100696	0908457C-41A	8/19/2009	8/24/2009	1.00	0.32	0.24	2.2	1.6
100697	0908457C-42A	8/19/2009	8/24/2009	1.00	0.32	0.20	ND	ND
100337	0908457C-43A	8/19/2009	8/24/2009	1.00	0.32	0.25	ND	ND
100338	0908457C-44A	8/19/2009	8/24/2009	1.00	0.32	0.25	ND	ND
100339	0908457C-45A	8/19/2009	8/24/2009	1.00	0.32	0.25	ND	ND
100340	0908457C-46A	8/19/2009	8/24/2009	1.00	0.32	0.25	ND	ND
100341	0908457C-47A	8/19/2009	8/24/2009	1.00	0.32	0.25	1.4	1.1
100342	0908457C-48A	8/19/2009	8/24/2009	1.00	0.32	0.20	ND	ND
100187	0908457C-49A	8/19/2009	8/24/2009	1.00	0.32	0.20	4.2	2.6
100188	0908457C-50A	8/19/2009	8/24/2009	1.00	0.32	0.20	3.7	2.2
100190	0908457C-51A	8/19/2009	8/24/2009	1.00	0.32	0.20	1.7	1.0
100191	0908457C-52A	8/19/2009	8/24/2009	1.00	0.32	0.20	1.2	0.73
100243	0908457C-53A	8/20/2009	8/24/2009	1.00	0.32	0.22	8.1	5.5
100244	0908457C-54A	8/20/2009	8/24/2009	1.00	0.32	0.22	7.3	5.0
100245	0908457C-55A	8/20/2009	8/24/2009	1.00	0.32	0.22	4.5	3.1
100246	0908457C-56A	8/20/2009	8/24/2009	1.00	0.32	0.22	6.0	4.1
100246 Lab Duplicate	0908457C-56AA	8/20/2009	8/24/2009	1.00	0.32	0.22	6.0	4.1
100247	0908457C-57A	8/20/2009	8/24/2009	1.00	0.32	0.22	6.9	4.7
100247 Lab Duplicate	0908457C-57AA	8/20/2009	8/24/2009	1.00	0.32	0.22	6.9	4.7
100248	0908457C-58A	8/20/2009	8/24/2009	1.00	0.32	0.20	ND	ND
Method Blank	0908457C-58A	NA	8/24/2009	1.00	0.32	0.20	ND	ND
Method Blank	0908457C-59B	NA	8/24/2009	1.00	0.32	0.20	ND	ND
CCV	0908457C-60A	NA	8/24/2009	1.00	0.32	0.20	%Rec 103	

COMMENTS: 1. NA=Not Applicable
 2. ND=Not Detected
 3. Exposure time of 21822 minutes was assumed for the QC samples and samples 100697, 100342 and 100248.

Dioxide Radiello Calculation Worksheet

Workorder #: 0908457C

1000ng/1ug

Sampling Rate (ug/(lph*min)) 0.141 Typically 0.96 for NO2

Sampling T (deg C) 25 Typically 25

Volume (ml) 5 Typically 5 for NO2

Date of Analysis: 8/24/2009

Abs-Y-int/DF Conc(ug)5 [ml] Conc (ug) x 1000 polx mw Low Point/DF
Slope 0.5ml 24.45

Corrected Q	0.141	25 into account temp																		
LabSampleID	Client	Date of Collection	Abs	Duration (min)	DF	Conc (ug) (for 0.5ml aliquot)	Conc (ug) in full 5 ml of sample	Conc (ug) x 1000	polx mw	Low Point/DF										
41A	100896	8/19/2009	0.060	18412	1.00	0.215200447	2.152004469	0.829	1.560	0.033										
42A	100897	8/19/2009	0.001	21822	1.00	-0.043253703	-0.432537032	-0.141	-0.264	0.033										
43A	100337	8/19/2009	0.015	17297	1.00	0.01807744	0.180744002	0.074	0.139	0.033										
44A	100338	8/19/2009	0.018	17297	1.00	0.031216137	0.312161367	0.128	0.241	0.033										
45A	100339	8/19/2009	0.015	17297	1.00	0.01807744	0.180744002	0.074	0.139	0.033										
46A	100340	8/19/2009	0.006	17297	1.00	-0.021350809	-0.213508091	-0.088	-0.165	0.033										
47A	100341	8/19/2009	0.043	17297	1.00	0.140730607	1.40730607	0.577	1.086	0.033										
48A	100342	8/19/2009	0.000	21822	1.00	-0.047634282	-0.47634282	-0.155	-0.291	0.033										
49A	100187	8/19/2009	0.107	21822	1.00	0.421087651	4.210876512	1.369	2.575	0.033										
50A	100188	8/19/2009	0.095	21822	1.00	0.368520705	3.685207054	1.198	2.253	0.033										
51A	100190	8/19/2009	0.049	21822	1.00	0.16701408	1.670140799	0.543	1.021	0.033										
52A	100791	8/19/2009	0.038	21822	1.00	0.118827713	1.18827713	0.386	0.727	0.033										
53A	100243	8/20/2009	0.195	19688	1.00	0.806578587	8.06578587	2.906	5.466	0.033										
54A	100244	8/20/2009	0.178	19688	1.00	0.732108747	7.321087471	2.637	4.962	0.033										
55A	100245	8/20/2009	0.114	19688	1.00	0.451751703	4.517517029	1.627	3.062	0.033										
56A	100246	8/20/2009	0.149	19688	1.00	0.605071961	6.050719615	2.180	4.101	0.033										
57A	100247	8/20/2009	0.149	19688	1.00	0.605071961	6.050719615	2.180	4.101	0.033										
57AA	100247 Lab Duplicate	8/20/2009	0.168	19688	1.00	0.688302959	6.883029589	2.479	4.685	0.033										
58A	100248	8/20/2009	0.169	19688	1.00	0.692683538	6.926835378	2.495	4.695	0.033										
			0.003	21822	1.00	-0.034492546	-0.344925456	-0.112	-0.211	0.033										
					1.00	-0.047634282	-0.47634282	#DNV/0!	#DNV/0!	0.033										
59A	Method Blank	NA	0.008	21822	1.00	-0.047634282	-0.47634282	#DNV/0!	#DNV/0!	0.033										
59B	Method Blank	NA	0.006	21822	1.00	-0.012589651	-0.125896515	-0.041	-0.077	0.033										
60A	CCV	NA	0.776	21822	1.00	-0.021350809	-0.213508091	-0.069	-0.131	0.033										
					1.00	3.351694879	33.51694879	10.893	20.494	0.033										

QC Duration 21822
CCV Spike Amt ug per 0.5 ml 3.25

QC Results and Raw Data

Spectrophotometer Logbook

@Air Toxics Ltd.

Log Book #: 1564

Work Order: 0908457C/D

Date: 8/24/09
 Analyst: A. Toyama

Method: Rad 166
 Wavelength: 537
 Prep. Notes:

Standard ID	Concentration	ABS
<u>1658-17-0.1</u>	<u>0.1 ug/mL</u>	<u>0.011</u>
<u>-0.5</u>	<u>0.5 ug/mL</u>	<u>0.042</u>
<u>-2</u>	<u>2 ug/mL</u>	<u>0.162</u>
<u>-10</u>	<u>10 ug/mL</u>	<u>0.774</u>
<u>-20</u>	<u>20 ug/mL</u>	<u>1.454</u>

$r = \frac{0.9995886}{}$
 $m = \frac{0.0741911}{}$
 $b = \frac{0.0108739}{}$

Fraction	Dilution	ABS	Sample ID	Sample Volume
<u>41A</u>	<u>1.00</u>	<u>0.000</u>	<u>1006916</u>	<u>50 5 mL</u>
<u>42A</u>		<u>0.001</u>	<u>697</u>	
<u>43A</u>		<u>0.015</u>	<u>337</u>	
<u>44A</u>		<u>0.018</u>	<u>338</u>	
<u>45A</u>		<u>0.015</u>	<u>339</u>	
<u>46A</u>		<u>0.006</u>	<u>340</u>	
<u>47A</u>		<u>0.043</u>	<u>341</u>	
<u>48A</u>		<u>0.000</u>	<u>342</u>	
<u>49A</u>		<u>0.107</u>	<u>187</u>	
<u>50A</u>		<u>0.095</u>	<u>188</u>	
<u>51A</u>		<u>0.049</u>	<u>190</u>	
<u>52A</u>		<u>0.038</u>	<u>191</u>	
<u>53A</u>		<u>0.195</u>	<u>243</u>	
<u>54A</u>		<u>0.178</u>	<u>244</u>	
<u>55A</u>		<u>0.114</u>	<u>245</u>	

Notes: Code 166 Lot 09150 Exp 07/010

Spectrophotometer Logbook

@Air Toxics Ltd.

Log Book #: 1564

Work Order: 0908457C10

Date: 8/24/09

Method: Rad K66

Analyst: A. Toyama

Wavelength: 537

Prep. Notes: Cont. from page 20

Standard ID	Concentration	ABS
1858-17-0.1	0.1 ug/ml	0.011
↓ 0.5	0.5 ug/ml	0.042
↓ 2	2 ug/ml	0.162
↓ 10	10 ug/ml	0.774
↓ 20	20 ug/ml	1.484

$$r = 0.9995886$$

$$m = 0.0741911$$

$$b = 0.0108739$$

Fraction	Dilution	ABS	Sample ID	Sample Volume ^{9/1/09}
56A	1.00	0.149	100246	5.0 6.5 mL
57A	↓	0.169	↓ 247	↓
58A	↓	0.003	↓ 248	↓
56AA	↓	0.149	↓ 246	↓
57AA	↓	0.169	↓ 247	↓
PKL	↓	0.008	NA	↓
PKL	↓	0.006	↓	↓
CCV/LCS EST	↓	0.776	↓	↓
8/24/09 Aes				

Notes: CCV/LCS prepared at 10 ug/ml

Standard ID: 1858-17

Project: Calibration Solution Rad 166

Analyst: A. Toyama

Preparation Date: 8/24/09

Expiration Date: 8/24/09

Solvent: DI H₂O

Solvent Lot #: NA

Procedure/Comments: Dissolve 5 mg Sodium Nitrite, 97% (Location ER2D) in 250 mL DI H₂O to yield 20 µg/mL or 20 µg/L ^{9/13/09} From this solution, dilute to ^{8/24/09} make: 13 µg/L or 13 µg/mL

6.5 µg/mL 1.3 µg/mL 0.325 µg/mL 0.065 µg/mL

10 µg/mL, 2.0 µg/mL, 0.5 µg/mL and 0.1 µg/mL 9/3/09 ^{AT}

To each of these calibration levels, transfer 0.5 mL to ^{9/13/09} vial and add 5 mL of sulphanilamide, cap tightly, stir and wait 5 minutes. Then add 1 mL of NEDA solution, stir and wait 10 minutes. Measure absorbance at 537 nm.

8/24/09
AT

Shipping/ Receiving Documents

**180 Blue Ravine Road, Suite B
Folsom, CA 95630**

**Phone (916) 985-1000 FAX (916) 985-1020
Hours 8:00 A.M. to 6:00 P.M. Pacific**

COMPANY: Environmental Health & Engineering, Inc.
ATTENTION: Mr. Taeko Minegishi
FAX #: 781-247-4305
FROM: Sample Receiving
Workorder #: 0908457C
of pages (Including Cover): 4

9/17/2009

Thank you for selecting Air Toxics Ltd. We have received your samples and have found no discrepancies. In order to expedite analysis and reporting, please review the attached information for accuracy.

Corrections can be faxed to **Ausha Scott at 916-985-1020.**

ATL will proceed with the analysis as specified on the Chain of Custody and Sample Login page.

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: Air Toxics

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 16512

The cost of this analysis will be covered by EH&E Purchase Order # 16512

For EH & E Data Coordinator - URGENT DATA

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.		
33A	100609	AIR PASSIVE	SO ₂ NO ₂ HF ANALYSIS	13D 18H 50M	
34A	100610			I	
35A	100611			∅	
36A	100612			∅	
37A	100692			12D 18H 52M	
38A	100693				
39A	100694				
40A	100695				
41A	100696				
42A	100697			∅	
43A	100337			12D 17MIN	
44A	100338				
45A	100339				
46A	100340				
47A	100341				
48A	100342	∅			

Special Instructions:

- Standard turn around time
- Fax results 781-247-4305
- RETURN SAMPLES
- Additional report recipient msgala@ehemc.com
- Rush by _____ date/time
- Electronic transfer - datacoordinator@ehemc.com

Filed 8/20/09
 CUSTODY SEAL INTACT?
 Y N
 TEMPERATURE

Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 8/20/09

Received by: [Signature] 0850 of (company name) ATC Date: 8/21/09

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data

Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: AIR TOXICS

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 16512

The cost of this analysis will be covered by EH&E Purchase Order # 16512

For EH & E Data Coordinator - URGENT DATA

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER (Time/Date/Vol.)
49A 100187	AIR PASSIVE	SO ₂ NO ₂ HF ANALYSIS	15 D 3H 42 MIN
50A 100188			
51A 100190			
52A 100191			
53A 100243			
54A 100244			
55A 100245			
56A 100246			
57A 100247			
58A 100248			∅

Special Instructions:

- Standard turn around time
- Fax results 781-247-4305
- RETURN SAMPLES
- Additional report recipient mfragala@ehinc.com
- Rush by _____ date/time
- Other _____
- Electronic transfer - datacoordinator@ehinc.com

Fedex 82042332920
 CUSTODY SEAL INTACT?
 Y N NONE TEMPS 8°C

Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 8/20/09
 Received by: [Signature] 0850 of (company name) ATC Date: 8/21/09
 Relinquished by: _____ of (company name) _____ Date: _____
 Received by: _____ of (company name) _____ Date: _____
 Relinquished by: _____ of (company name) _____ Date: _____
 Received by: _____ of (company name) _____ Date: _____
 Lab Data
 Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

SAMPLE RECEIPT SUMMARY

WORKORDER 0908457C

Client	Phone	Date Promised: 09/01/09 11:59 pm
Mr. Taeko Minegishi	800-825-5343	Date Completed: 9/16/09
Environmental Health & Engineering, Inc.	Fax	Date Received: 8/21/09
117 Fourth Avenue	781-247-4305	PO#: 16512
Needham, MA 02494		Project#: 16512
Sales Rep: TL		Total \$: \$ 810.00
		Logged By: MW

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
41A	100696	ATL Applications	8/6/2009	\$40.00
42A	100697	ATL Applications	8/6/2009	\$40.00
43A	100337	ATL Applications	8/7/2009	\$40.00
44A	100338	ATL Applications	8/7/2009	\$40.00
45A	100339	ATL Applications	8/7/2009	\$40.00
46A	100340	ATL Applications	8/7/2009	\$40.00
47A	100341	ATL Applications	8/7/2009	\$40.00
48A	100342	ATL Applications	8/7/2009	\$40.00
49A	100187	ATL Applications	8/4/2009	\$40.00
50A	100188	ATL Applications	8/4/2009	\$40.00
51A	100190	ATL Applications	8/4/2009	\$40.00
52A	100191	ATL Applications	8/4/2009	\$40.00
53A	100243	ATL Applications	8/6/2009	\$40.00
54A	100244	ATL Applications	8/6/2009	\$40.00
55A	100245	ATL Applications	8/6/2009	\$40.00
56A	100246	ATL Applications	8/6/2009	\$40.00
56AA	100246 Lab Duplicate	ATL Applications	8/6/2009	\$0.00
57A	100247	ATL Applications	8/6/2009	\$40.00
57AA	100247 Lab Duplicate	ATL Applications	8/6/2009	\$0.00
58A	100248	ATL Applications	8/6/2009	\$40.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
 Atlas Project Name/Profile#: CPSC Indoor Air Monitoring/13297

BILL TO: Accounts Payable
 Environmental Health & Engineering, Inc.
 117 Fourth Avenue
 Needham, MA 02494

Analysis Code: Other GC

TERMS:

Reporting Method: ATL Application #61 NO2-Radiello 166

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

SAMPLE RECEIPT SUMMARY Continued

Client	Phone	Date Promised: 09/01/09 11:59 pm
Mr. Taeko Minegishi	800-825-5343	Date Completed: 9/16/09
Environmental Health & Engineering, Inc.	Fax	Date Received: 8/21/09
117 Fourth Avenue	781-247-4305	PO#: 16512
Needham, MA 02494		Project#: 16512
Sales Rep: TL		Total \$: \$ 810.00
		Logged By: MW

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
59A	Method Blank	ATL Applications	NA	\$0.00
59B	Method Blank	ATL Applications	NA	\$0.00
60A	CCV	ATL Applications	NA	\$0.00
Misc. Charges eCVP (18) @ \$5.00 each.				\$90.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: CPSC Indoor Air Monitoring/13297

BILL TO: Accounts Payable
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Analysis Code: Other GC

TERMS:

Reporting Method: ATL Application #61 NO2-Radiello 166

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

Sample Discrepancy Report

Identification

Initiated By: MW Project ID: 13297 PM: BL Date: 8/21/2009 Discrepancy Type: 1. 2. 3.

Workorder(s) affected: 0908457 Sample(s) affected: all

1. Sample Receipt Discrepancies

Narration Not Required:

- 1.1. Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.
- 1.2. No brass cap on canister.
- 1.3. Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

- 1.4. Tedlar bag received with minimal volume.

Initials: _____ Date: _____

Narration Required in Lab Narrative and Sample Confirmation:

- 1.5. COC was not filled out in ink.
- 1.6. COC improperly relinquished / received.
- 1.7. Sample tags / can numbers do not match the COC.
- 1.8. Sample date error / missing on COC but noted on sample tag (check one).
- 1.9. Custody Seal on the outside of the container was broken / improperly placed (check one).
- 1.10. ID-none on the sample Tag/Blank
- 1.11. Other (describe below).

Describe the Discrepancy:

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of initiation

- 2.1. COC was not received with samples.
- 2.2. Analysis method(s) is not specified / incorrectly specified (check one) on the COC.
- 2.3. Incorrect sampling media / container for analysis requested.
- 2.4. Number of samples on the COC does not match the number of samples that were received.
- 2.5. Samples were received expired.
- 2.6. Sampling date (time for sulfur) is not documented for some / any samples (check one).
- 2.7. Sample received with amount of H₂O in the Tedlar Bag.
- 2.8. Sample cannot be analyzed. Container was received broken / leaking / flat / defective.
- 2.9. Tedlar bag / canister received emitting a strong odor; Sample can / cannot (check one) be analyzed.
- 2.10. Tedlar Bag for Sulfur analysis has metal fitting.
- 2.11. Environmental Supply Company valves
- 2.12. Sorbent samples - sampling volume was not provided
- 2.13. Flow controller used – canister samples received at ambient or under pressure.
- 2.14. Canister was at ambient pressure at time of pressurization and (check all that apply):
 - Canister failed leak check on two manifolds,
 - Canister valve was open,
 - Brass nut was loose/not present.
 - Sample can be analyzed
 - Cannot be analyzed
- 2.15. Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.
- 2.16. Canister sample received at >15"Hg (not identified as a Trip/Field Blank).
- 2.17. Canister Trip Blank received at low vacuum (< 25"Hg).
- 2.18. Sorbent Sample received outside method required temperature of 2°C to 6°C; ice / blue ice (check one) was present. A temp. Blank was / was not present (check one).
- 2.19. Other (describe below)

Initials: _____

Date: _____

Notify Receiving:

Notify PM:

Describe the Discrepancy: samples rec'd at 8 C

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

- | | |
|--|--|
| 3.1. <input type="checkbox"/> Tedlar Bag found to be leaking at the time of analysis; sample <input type="checkbox"/> can / <input type="checkbox"/> cannot (check one) be analyzed. | 3.6. <input type="checkbox"/> Sample loss due to instrument malfunction / broken glassware. |
| 3.2. <input type="checkbox"/> Tedlar Bag found to be flat/low volume; sample cannot be analyzed. | 3.7. <input type="checkbox"/> Low/high surrogate recoveries noted in QC/sample(s) for extractable samples. |
| 3.3. <input type="checkbox"/> Sulfur samples received with insufficient time to analyze prior to expiration. | 3.8. <input type="checkbox"/> Reporting Limit was raised. |
| 3.4. <input type="checkbox"/> Canister found to be leaking at the time of analysis. | 3.9. <input type="checkbox"/> Post weight > Pre weight in field/lab Blank for PM10/TSP samples. |
| 3.5. <input type="checkbox"/> VOST tube saturated; bag dilution necessary. | 3.10. <input type="checkbox"/> Other (describe below). |

Initials: _____ Date: _____ Notify Receiving: Notify PM:

Team Lead Initials: _____ Date: _____

Describe the Discrepancy: _____

How Does this Affect Client: _____

Project Manager Use Only

Project Manager Notification Complete

Section 2 Complete

Section 3

Action:

- It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials: _____ Date: _____

- Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials: BL Person notified: David Shore Date: 8/21/2009

- Waiting for Client Reply

Comments: **Proceed and narrate. See table for time of collection.** _____

Notify Lab Name: _____ Date: _____ **Notify Receiving:**

- Additional notifications attached.

Additional Comments:

Other Records

Method : ATL Application #61 NO2-Radiello 166

CAS Number	Compound	Rpt. Limit (ug)
10102-44-0	Nitrogen Dioxide	1.0

DATA REVIEW CHECKLIST

Work Order #:

0908457C

- A₁
- A₂
- R
- T
- M
- Q

Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
 The final report has the correct reporting list, special units, and header info.
 Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
 Sample Discrepancy Report (SDR) is completed

-
-

Corrective Action issued - # _____
 Unusual circumstances have been documented in the notes section below

LUMEN validation report present and initialed

CIRCLE (YES / NO)

-
-
-
-
-
-
-
-

Lab Blank, CCV, LCS and DUP met QC criteria
 Hold time is met for all samples
 Appropriate data qualifier flags are applied
 Manual integrations for samples and QC are properly documented
 Samples analyzed within the project or method specific clock
 Retention times have been verified
 Appropriate ICAL(s) included
 At least one result per sample is verified against the target quant sheets/raw data

-
-

Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
 Correct amount of sample analyzed (i.e. sample not over-diluted)
 Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)

-
-
-
-

TICs resemble reference spectra
 TICs between duplicate samples are consistent
 Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
 Data for multiple analyses of sample(s) has been evaluated for comparability of results

-
-

Special units for all samples in the final report are correctly calculated
 Manually entered results checked (i.e. TPH/NMOC)

-
-
-
-

Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
 Chain of Custody scanned correctly
 Verify sample id's vs. chain of custody
 Date MDL(s) performed per instrument(s) _____

-
-
-
-
-
-

Samples pressurized w/ appropriate gas (N₂ or He) Other (i.e. Tedlar bag, cartridge, sorbent)
 Final pressure consistent with canister size (6L vs. 1L)
 Verify receipt pressures
 Verify canister ID #'s
 Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)

-

MDL date(s) present for all instruments utilized
 Client LUMEN report reviewed for accuracy and completeness

Notes: (to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)

A/R: Dup. 56A, 57A

M/Q:

A₁/A₂
 (Analytical Review/Date)
 A₁: 4/9/2/09

R/T
 (Reporting Review/Date)
 R:

M
 (Management Review/Date)
 M 9/16/09

Q
 (QA Review/Date)

A₂:
 T: