@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

ATL Applications

INVENTORY SHEET

WORK ORDER # 0910017A

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Completed by:

Kara McKiernan	Kara McKiernan/ Document Control	10/20/09
(Signature)	(Print Name & Title)	(Date)

WORK ORDER #: 0910017A

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:	10/01/2009	**CONTACT:**	Ausha Scott
DATE COMPLETED:	10/19/2009		

FRACTION #	NAME	TEST
01A	101777	ATL Applications
02A	101778	ATL Applications
03A	101779	ATL Applications
04A	101780	ATL Applications
05A	101781	ATL Applications
05AA	101781 Lab Duplicate	ATL Applications
06A	101782	ATL Applications
07A	101806	ATL Applications
08A	101807	ATL Applications
08AA	101807 Lab Duplicate	ATL Applications
09A	101808	ATL Applications
10A	101809	ATL Applications
11A	101810	ATL Applications
12A	101811	ATL Applications
13A	101835	ATL Applications
14A	101836	ATL Applications
15A	101837	ATL Applications
16A	101838	ATL Applications

Continued on next page

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DATE COMPLETED:	10/19/2009		

FRACTION #	NAME	TEST
17A	Lab Blank	ATL Applications
17B	Lab Blank	ATL Applications
18A	CCV	ATL Applications

CERTIFIED BY: Linda A. Truman

Laboratory Director

DATE: 10/19/09

LABORATORY NARRATIVE
Hydrogen Sulfide by Radiello 170
Environmental Health & Engineering, Inc.
Workorder# 0910017A

Sixteen Radiello 170 (H2S) samples were received on October 01, 2009. The procedure involves adsorption of H2S by zinc acetate to form zinc sulfide. The sulfide is then recovered by extraction with water and addition of ferric chloride in a strongly acidic solution to produce methylene blue. Methylene blue absorbance is then measured at 665 nm using a spectrophotometer. Results are reported in uG and uG/m3.

Sampling rate of 69 mL/min for H2S was provided by the manufacturer.

Receiving Notes

There were no receiving discrepancies.

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 20160 minutes was used for the QC samples.

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

0003

Sample Results and Raw Data

ATL Application # 59 for RAD 170 (Hydrogen Sulfide)

Spectrophotometer

Field Sample I.D.	Lab Sample I.D.	Collection Date	Analysis Date	Dilution Factor	Reporting Limit (ug)	Reporting Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
101777	0910017A-01A	9/29/2009	10/1/2009	1.00	0.80	0.54	0.86	0.58
101778	0910017A-02A	9/29/2009	10/1/2009	1.00	0.80	0.54	ND	ND
101779	0910017A-03A	9/29/2009	10/1/2009	1.00	0.80	0.54	ND	ND
101780	0910017A-04A	9/29/2009	10/1/2009	1.00	0.80	0.54	ND	ND
101781	0910017A-05A	9/29/2009	10/1/2009	1.00	0.80	0.54	0.87	0.59
101781 Lab Duplicate	0910017A-05AA	9/29/2009	10/1/2009	1.00	0.80	0.54	0.96	0.65
101782	0910017A-06A	NA	10/1/2009	1.00	0.80	0.54	ND	ND
101806	0910017A-07A	9/29/2009	10/1/2009	1.00	0.80	0.54	1.2	0.83
101807	0910017A-08A	9/29/2009	10/1/2009	1.00	0.80	0.54	0.85	0.57
101807 Lab Duplicate	0910017A-08AA	9/29/2009	10/1/2009	1.00	0.80	0.54	0.88	0.60
101808	0910017A-09A	9/29/2009	10/1/2009	1.00	0.80	0.54	ND	ND
101809	0910017A-10A	9/29/2009	10/1/2009	1.00	0.80	0.54	ND	ND
101810	0910017A-11A	9/29/2009	10/1/2009	1.00	0.80	0.54	0.93	0.63
101811	0910017A-12A	NA	10/1/2009	1.00	0.80	0.54	ND	ND
101835	0910017A-13A	9/30/2009	10/1/2009	1.00	0.80	0.54	ND	ND
101836	0910017A-14A	9/30/2009	10/1/2009	1.00	0.80	0.54	ND	ND
101837	0910017A-15A	9/30/2009	10/1/2009	1.00	0.80	0.54	ND	ND
101383	0910017A-16A	9/30/2009	10/1/2009	1.00	0.80	0.54	ND	ND
Method Blank	0910017A-17A	NA	10/1/2009	1.00	0.80	0.54	ND	ND
Method Blank	0910017A-17B	NA	10/1/2009	1.00	0.80	0.54	ND	ND
								%Rec
CCV	0910017A-18A	NA	10/1/2009	1.00	0.80	0.54		102

COMMENTS: 1. NA=Not Applicable
2. ND=Not Detected
3. Exposure time of 20160 minutes was assumed for the QC samples.
4. Background subtraction not performed.

Hydrogen Sulfide Radiello Calculation Worksheet

Workorder #:	0910017A	
Sampling Rate (ng/ppb.min)	0.096	Typically0.096 for H2S
Sampling T (deg C)	25	Typically 25
Volume (mL)	10.5	Typically 10.5 for H2S
Date of Analysis:	10/1/2009	
Corrected Q	0.096	Takes into account temp

Q includes conversion from Sulfide to H2S

(Abs-Y-int)xDF / Slope

Conc(ug/mL)xVol (mL)

conc (ug sulfide) *MW H2S / MW Sulfide

Conc (ug) x 1000 / Q x Duration

ppbx mw: 24.45

T Corrected, no Blank correction

LabSampleID	Client	Date of Collection	Abs	Duration (min)	DF	Conc (ug/mL) of sulfide	Conc (ug) of sulfide	Conc (ug) of H2S	Conc (ppb) of H2S	Conc (ug/m3) of H2S
01A	101777	9/29/2009	0.102	20160	1.00	0.07690493	0.80750177	0.858162623	0.417	0.582
02A	101778	9/29/2009	0.068	20160	1.00	0.045284148	0.475483556	0.50531433	0.246	0.342
03A	101779	9/29/2009	0.078	20160	1.00	0.054584378	0.573135972	0.609093239	0.296	0.413
04A	101780	9/29/2009	0.079	20160	1.00	0.055514401	0.582901213	0.61947113	0.301	0.420
05A	101781	9/29/2009	0.103	20160	1.00	0.077834953	0.817267011	0.868540514	0.422	0.589
05AA	101781 Lab Duplicate	9/29/2009	0.112	20160	1.00	0.086205161	0.905154185	0.961941533	0.468	0.652
06A	101782	NA	0.015	20160	1.00	-0.004007071	-0.042074248	-0.044713892	-0.022	-0.030
07A	101806	9/29/2009	0.137	20160	1.00	0.109455736	1.149285225	1.221388807	0.594	0.828
08A	101807	9/29/2009	0.101	20160	1.00	0.075974907	0.797736528	0.847784732	0.412	0.575
08AA	101807 Lab Duplicate	9/29/2009	0.104	20160	1.00	0.078764976	0.827032253	0.878918405	0.427	0.596
09A	101808	9/29/2009	0.064	20160	1.00	0.041564056	0.43642259	0.463802766	0.225	0.314
10A	101809	9/29/2009	0.081	20160	1.00	0.057374447	0.602431696	0.640226912	0.311	0.434
11A	101810	9/29/2009	0.109	20160	1.00	0.083415091	0.875858461	0.93080786	0.453	0.631
12A	101811	NA	0.019	20160	1.00	-0.000286979	-0.003013281	-0.003202328	-0.002	-0.002
13A	101835	9/30/2009	0.061	20160	1.00	0.038773987	0.407126865	0.432669093	0.210	0.293
14A	101836	9/30/2009	0.054	20160	1.00	0.032263826	0.338770174	0.360023856	0.175	0.244
15A	101837	9/30/2009	0.038	20160	1.00	0.017383458	0.182526309	0.193977601	0.094	0.131
16A	101383	9/30/2009	0.082	20160	1.00	0.05830447	0.612196938	0.650604803	0.316	0.441
					1.00	-0.017957416	-0.188552871	-0.200382256	#DIV/0!	#DIV/0!
					1.00	-0.017957416	-0.188552871	-0.200382256	#DIV/0!	#DIV/0!
					1.00	-0.017957416	-0.188552871	-0.200382256	#DIV/0!	#DIV/0!
					1.00	-0.017957416	-0.188552871	-0.200382256	#DIV/0!	#DIV/0!
17A	Method Blank	NA	0.013	20160	1.00	-0.005867117	-0.061604731	-0.065469674	-0.032	-0.044
17B	Method Blank	NA	0.011	20160	1.00	-0.007727163	-0.081135214	-0.086225456	-0.042	-0.058
18A	CCV	NA	0.334	20160	1.00	0.292670268	3.073037816	3.265833328	1.588	2.213

QC Duration	CCV Spike Amt
20160	0.286

Verified: HH and AW on 9/4/09

Low PointxDF	RL(ug/mL)xVol (mL)	RL (ug sulfide) *MW H2S / MW Sulfide	Q includes conversion from Sulfide to H2S RL (ug) x 1000 / Q x Duration	ppbx mw / 24.45					Calibration Data	Calibration Date 10/1/2009 Linear Regression		
					T Corrected, no Blank correction							
RL(ug/ml) of sulfide	RL (ug) of sulfide	RL (ug) of H2S	RL (ppb) of H2S	RL (ug/m3)	Result (ug) H2S	Result (ug/m3) H2S	%Rec	ug/ml of sulfide	absorbance			
0.072	0.752	0.798966249	0.39	0.541	0.858162623	0.581604731		0	0	Slope	1.075242217	
0.072	0.752	0.798966249	0.39	0.541	ND	ND		0.0716	0.086	Y-int	0.019308572	
0.072	0.752	0.798966249	0.39	0.541	ND	ND		0.143	0.169	R2	0.999566265	
0.072	0.752	0.798966249	0.39	0.541	ND	ND		0.286	0.338			
0.072	0.752	0.798966249	0.39	0.541	0.868540514	0.588638165		0.572	0.644			
0.072	0.752	0.798966249	0.39	0.541	0.961941533	0.651939075		1.145	1.244			
0.072	0.752	0.798966249	0.39	0.541	ND	ND						
0.072	0.752	0.798966249	0.39	0.541	1.221388807	0.827774934						
0.072	0.752	0.798966249	0.39	0.541	0.847784732	0.574571297						
0.072	0.752	0.798966249	0.39	0.541	0.878918405	0.5956716						
0.072	0.752	0.798966249	0.39	0.541	ND	ND						
0.072	0.752	0.798966249	0.39	0.541	ND	ND						
0.072	0.752	0.798966249	0.39	0.541	0.93080786	0.630838772						
0.072	0.752	0.798966249	0.39	0.541	ND	ND						
0.072	0.752	0.798966249	0.39	0.541	ND	ND						
0.072	0.752	0.798966249	0.39	0.541	ND	ND						
0.072	0.752	0.798966249	0.39	0.541	ND	ND						
0.072	0.752	0.798966249	0.39	0.541	ND	ND						
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!						
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!						
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!						
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!						
0.072	0.752	0.798966249	0.39	0.541	ND	ND						
0.072	0.752	0.798966249	0.39	0.541	ND	ND	%Rec					
0.072	0.752	0.798966249	0.39	0.541	3.265833328	2.213361505	102					

QC Results and Raw Data

Spectrophotometer Logbook **@Air Toxics Ltd.** **Logbook#: 1875**

Work Order: 0910017A **Date:** 10/01/09 **Method:** Rad 170

Analyst: M.Skidmore **Wavelength:** 665 nm

Standard ID	Concentration	ABS
Level 1 1858-70 - E	0.0716 mg/mL	0.086
Level 2 - D	0.143 mg/mL	0.169
Level 3 - C	0.286 mg/mL	0.338
Level 4 - B	0.572 mg/mL	0.644
Level 5 - A	1.145 mg/mL	1.244
ICV 1858-71	0.286 mg/mL	0.324

r = 0.9996
m = 1.075
b = 0.019

ICV % Recovery = 100

Fraction	Dilution	ABS	Sample ID	Sample Volume	Comments
01A	1.00	0.102	101777	10.5 mL	
02A		0.068	101778		
03A		0.078	101779		
04A		0.079	101780		
05A		0.103	101781		
05AA		0.112	101781		
06A		0.015	101782		
07A		0.137	101806		
08A		0.101	101807		
08AA		0.104	101807		
09A		0.064	101808		
10A		0.081	101809		
11A		0.109	101810		
12A		0.019	101811		
13A		0.061	101835		
14A		0.054	101836		
15A		0.038	101837		
16A		0.082	101838		
BLK		0.013	N/A		lot: 09075
BLK		0.011			↓
LCS		0.165			0.133 mg/mL
CCV	↓	0.334	↓	↓	0.286 mg/mL

Procedure:

Signed

10/2/09
Date

Spectrophotometer Standard Preparation Log **@Air Toxics Ltd.** **Log Book #:** 1858

Standard ID: 1858-47
Project: Ferric Chloride Solution Rad170
Analyst: M. Skidmore
Preparation Date: 9/23/09
Expiration Date: 3~~/23/09~~ MS 9/23/09 9/23/09

Solvent: D.I. H_2O
Solvent Lot #: N/A

Procedure/Comments: Dissolve 25g of ferric chloride hexahydrate (Located in ER2C lot: 73297 MJ) in 10.0 mL of D.I. H_2O.

MS 9/23/09

Signed 9/25/09 Date

Reviewed 9/24/09 Date

Spectrophotometer Standard Preparation Log **@Air Toxics Ltd.** **Log Book #: 1858**

Standard ID: 1858-64
Project: Rad 170 Amine Solution
Analyst: M. Skidmore
Preparation Date: 9/30/09
Expiration Date: 10/30/09

Solvent: H_2SO_4 / H_2O
Solvent Lot #: N/A

Procedure/Comments:

Sulfuric acid solution:

Slowly add 6.25 mL of concentrated sulfuric acid to 2.5 mL of DI H_2O, and let the solution cool. (Sulfuric acid lot: 060110A)

Amine solutions

Dissolve 1.6875 g of N,N-dimethyl-p-phenylendiammonium oxalate (located ERIA, lot: 63797PJ) in the above mentioned sulfuric acid solution. Dilute this solution to 250 mL with sulfuric acid - water 1:1 v/v, (this is roughly 120 mL H_2O + 120 mL H_2SO_4)

MTS
9/30/09

Signed 9/30/09 Date — Reviewed 10/6/09 Date

Spectrophotometer Standard Preparation Log **@Air Toxics Ltd.** **Log Book #:** 1858

Standard ID: 1858-70
Project: Calibration Solution Rad 170
Analyst: M. Skidmore
Preparation Date: 10/1/09
Expiration Date: 10/1/09

Solvent: D.I. H2O
Solvent Lot #: N/A

Procedure/Comments:

Solution A: 2 mL of Code Rad 171 (1476-984, exp 8/6/10) (located in ER1B) with 98 mL of D.I. H_2O = 1.145 µg/mL

Solution B: 2.5 mL of Solution A with 2.5 mL of D.I. H_2O = 0.572 µg/mL

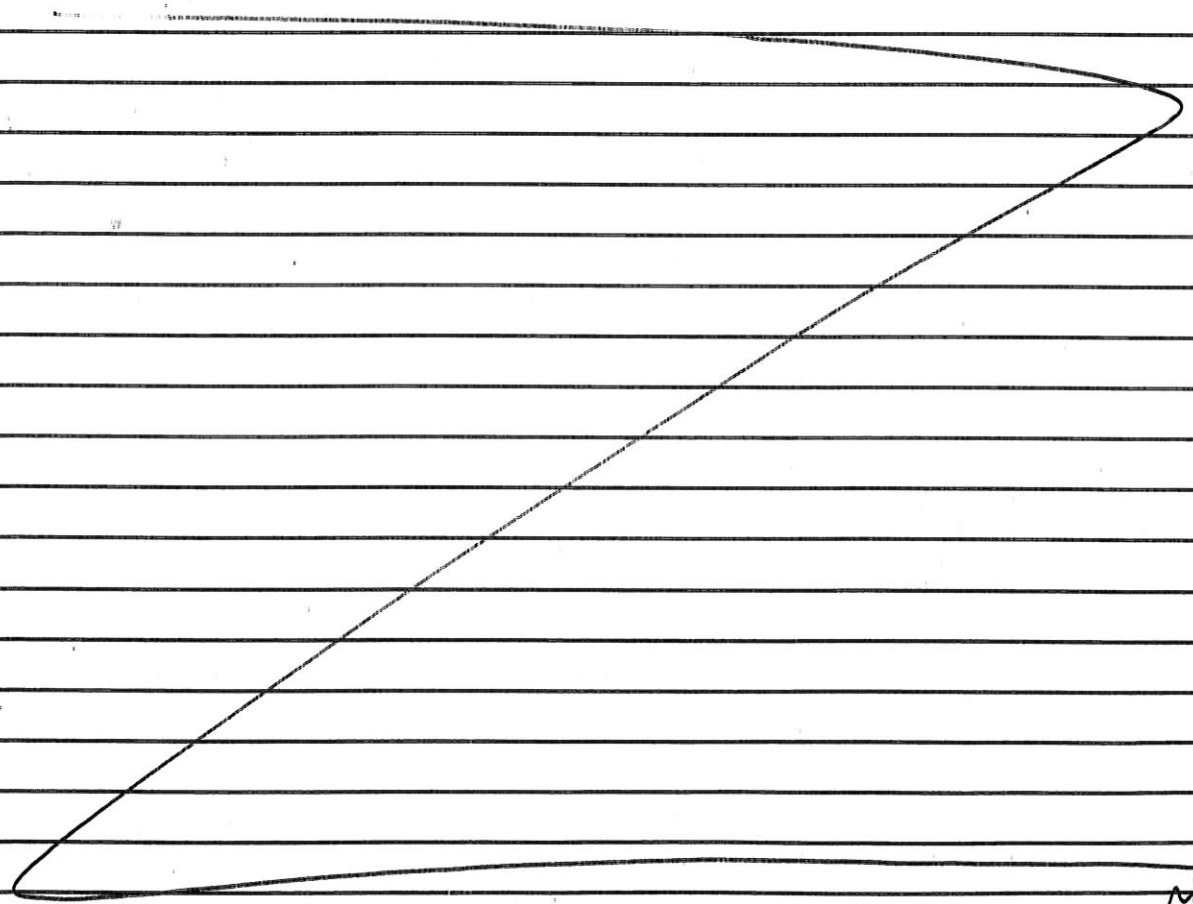
Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H_2O = 0.286 µg/mL

Solution D: 0.625 mL of Solution A with 4.375 mL of D.I. H_2O = 0.143 µg/mL

Solution E: 0.375 mL of Solution A with 5.625 mL of D.I. H_2O = 0.0716 µg/mL

Note: Each solution was measured immediately after it was prepared. Solution A is only stable in the flask it was prepared in.

MJS 10/1/09



MJS 10/5/09

10/5/09 10/6/09

Spectrophotometer Standard Preparation Log **@Air Toxics Ltd.** **Log Book #:** 1858

Standard ID: 1858-71
Project: H_2S ICV Rad 170
Analyst: Ly
Preparation Date: 10/1/09
Expiration Date: 10/1/09

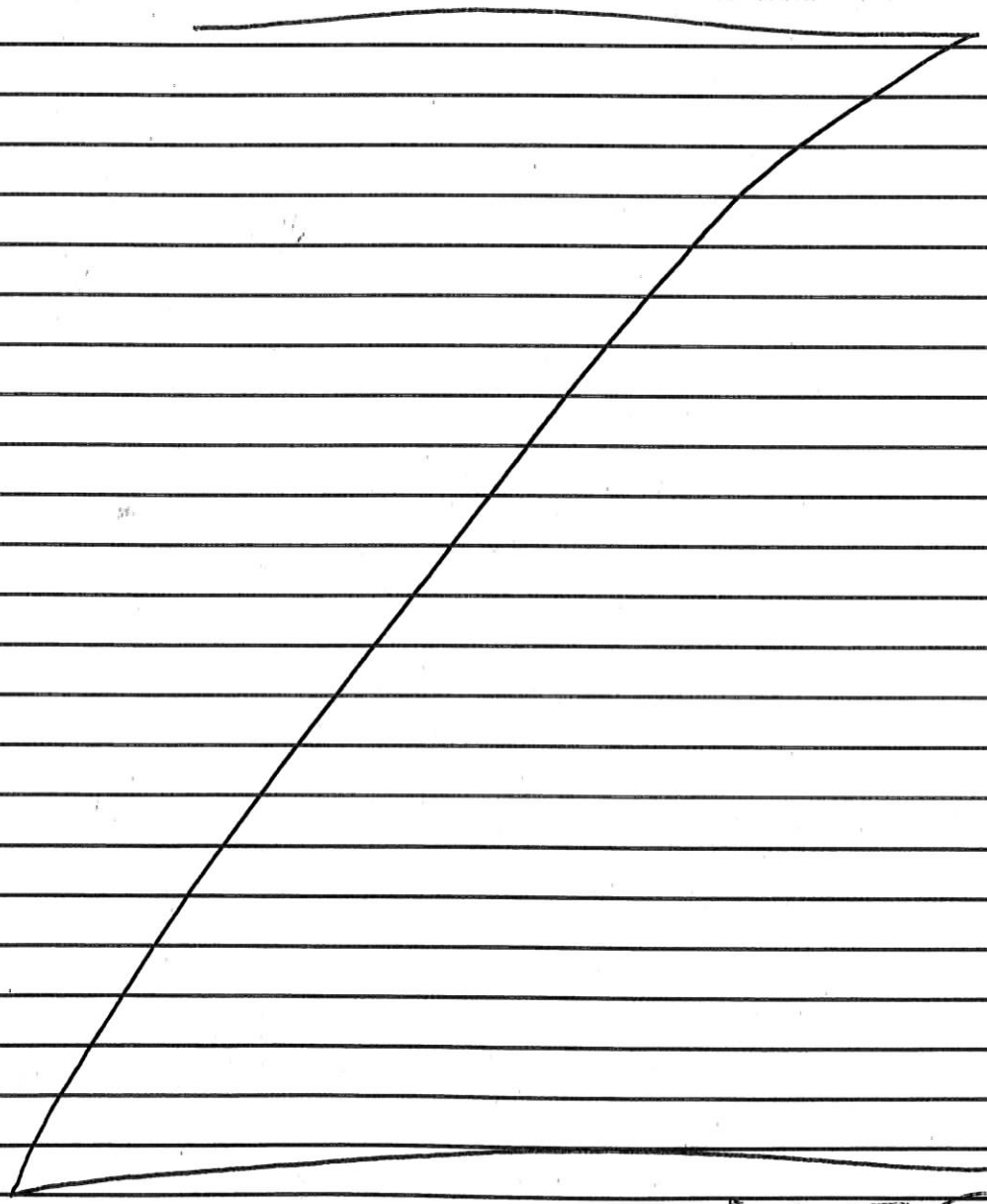
Solvent: DI H_2O
Solvent Lot #: NA

Procedure/Comments:

Solution A: 2 mL of Code Rad 171 (1476-984, exp 8/6/10) (located in ER1B) with 98 mL of D.I. H_2O = 1.145 µg/mL

Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H_2O = 0.286 µg/mL

Note: Each solution was measured immediately after it was prepared. Solution A is only stable in the flask it was prepared in.



Ly 10/1/09

Signed 10/1/09 Date Reviewed 10/6/09 Date

Spectrophotometer Standard Preparation Log **@Air Toxics Ltd.** **Log Book #: 1858**

Standard ID: 1858-72
Project: Ferric Chloride - Amine
Analyst: M. Skidmore
Preparation Date: 10/1/09
Expiration Date: 10/1/09

Solvent: DI H_2O
Solvent Lot #: N/A

Procedure/Comments: 6.5 mL of ferric chloride (1858-47) with 32.5 mL of amine solution (1858-64).

MJS
10/1/09

Mike Skidmore 10/1/09 Courtney Leach 10/6/09

Page 72 Signed Date Reviewed Date

Shipping/ Receiving Documents

Air Toxics LTD.
Laboratory Services Since 1989

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 #: 0910017A
# of pages (Including Cover): 4

10/20/2009

Thank you for selecting Air Toxics Ltd. We have received your samples and have found 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.

In accordance with your company's contract, this account is required to have a PO that is fully executed by both parties which also covers the cost of the workorder before any data can be released. Please ensure that you have given all appropriate information to our Project Manager so that there will be no delay in reporting of the data you are requesting.

Your prompt response is appreciated.

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 9/30/09

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

0910017

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	Start	OTHER; Time/Date/Vol.	Stop
01A	101777	Air/Passive	H_2S Analysis	9/15/09	9/29/09	
02A	101778					
03A	101779					
04A	101780					
05A	101781					
06A	101782				Ø	
07A	101806		H_2S Analysis	9/15/09	9/29/09	
08A	101807					
09A	101808					
10A	101809					
11A	101810					
12A	101811				Ø	
13A	101835		H_2S Analysis	9/16/09	9/30/09	
14A	101836					
15A	101837					
16A	101838					

Special instructions:

☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other Fedex 9704 2333 1773

☐ Fax results 781-247-4305

☐ **RETURN SAMPLES**

☒ Electronic transfer - datacoordinator@eheinc.com

☒ Additional report recipient MFragala@eheinc.com

CUSTODY SEAL INTACT? Y N NONE TEMP 4.4°C

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

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 9/30/09

Received by: _____ of (company name) AT Date: 10/1/09

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: _____

WHITE-EH&E FILE COPY YELLOW-LAB COPY PINK-PROJECT MANAGER COPY GOLD-DATA COORDINATOR COPY

SAMPLE RECEIPT SUMMARY

WORKORDER 0910017A

Client

Mr. Taeko Minegishi
Environmental Health &
Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Phone

800-825-5343

Fax

781-247-4305

Sales Rep: TL

Date Promised: 10/12/09 11:59 pm
Date Completed: 10/19/09
Date Received: 10/1/09
PO#: 16512
Project#: 16512

Total $: $ 880.00
Logged By: MW

Fraction	Sample #	Analysis	Collected	Amount$
01A	101777	ATL Applications	9/29/2009	$50.00
02A	101778	ATL Applications	9/29/2009	$50.00
03A	101779	ATL Applications	9/29/2009	$50.00
04A	101780	ATL Applications	9/29/2009	$50.00
05A	101781	ATL Applications	9/29/2009	$50.00
05AA	101781 Lab Duplicate	ATL Applications	9/29/2009	$0.00
06A	101782	ATL Applications	NA	$50.00
07A	101806	ATL Applications	9/29/2009	$50.00
08A	101807	ATL Applications	9/29/2009	$50.00
08AA	101807 Lab Duplicate	ATL Applications	9/29/2009	$0.00
09A	101808	ATL Applications	9/29/2009	$50.00
10A	101809	ATL Applications	9/29/2009	$50.00
11A	101810	ATL Applications	9/29/2009	$50.00
12A	101811	ATL Applications	NA	$50.00
13A	101835	ATL Applications	9/30/2009	$50.00
14A	101836	ATL Applications	9/30/2009	$50.00
15A	101837	ATL Applications	9/30/2009	$50.00
16A	101838	ATL Applications	9/30/2009	$50.00
17A	Lab Blank	ATL Applications	NA	$0.00
17B	Lab Blank	ATL Applications	NA	$0.00

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 #59 H2S-Radiello 170

SAMPLE RECEIPT SUMMARY Continued

Client

Mr. Taeko Minegishi
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Sales Rep: TL

Phone

800-825-5343

Fax

781-247-4305

Date Promised: 10/12/09 11:59 pm
Date Completed: 10/19/09
Date Received: 10/1/09
PO#: 16512
Project#: 16512

Total $: $ 880.00
Logged By: MW

Fraction	Sample #	Analysis	Collected	Amount$
18A	CCV	ATL Applications	NA	$0.00
Misc. Charges	eCVP (16) @ $5.00 each.			$80.00

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 #59 H2S-Radiello 170

Other Records

Air Toxics LTD.
Laboratory Services Since 1989

Method : ATL Application #59 H2S-Radiello 170

CAS Number	Compound	Rpt. Limit (ug)
7783-06-4	Hydrogen Sulfide	1.2

@Air Toxics Ltd.

DATA REVIEW CHECKLIST

Work Order #: 0910017A

A_1	A_2	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)
		N/A	☐	☑	☐	Sample Discrepancy Report (SDR) is completed
☐	☐	N/A	☐	☐	☐	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
		☑	☐	N/A	☐	Appropriate data qualifier flags are applied
		N/A	☐	☑	☐	Manual integrations for samples and QC are properly documented
☐	☐	☑	☐		☐	Samples analyzed within the project or method specific clock
		N/A	☐			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)
		N/A	☐			Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		N/A	☐			TICs resemble reference spectra
		N/A	☐			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
		N/A	☐	☑		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) 9/4/09
☐	☐	N/A				Samples pressurized w/ appropriate gas (N_2 or He) ☐ Other (i.e. Tedlar bag, cartridge, sorbent)
☐	☐	N/A				Final pressure consistent with canister size (6L vs. 1L)
☐	☐	N/A				Verify receipt pressures
☐	☐	N/A				Verify canister ID #'s
		☐		☐		Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
				☑		MDL date(s) present for all instruments utilized
		☐	☐	N/A	☐	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:

M/Q:

A_1/A_2 (Analytical Review/Date)	R/T (Reporting Review/Date)	M (Management Review/Date)	Q (QA Review/Date)
A_1:	R:	10/19/09	
A_2:	T:		

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply. Rev. 01/2007

Note (2): Management reviewer and reporting reviewer must be separate individuals.