



AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

ATL Applications

INVENTORY SHEET

WORK ORDER # 1011419A

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Completed by:

Kara McKiernan

(Signature)

Kara McKiernan/ Document Control

(Print Name & Title)

12/03/10

(Date)

WORK ORDER #: 1011419A

Work Order Summary

CLIENT:	Mr. Brian Baker 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. #	17131
FAX:	781-247-4305	PROJECT #	17131
DATE RECEIVED:	11/18/2010	CONTACT:	Ausha Scott
DATE COMPLETED:	12/01/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	118677	ATL Applications
01AA	118677 Lab Duplicate	ATL Applications
02A	118678	ATL Applications
03A	118679	ATL Applications
04A	118680	ATL Applications
05A	118681	ATL Applications
06A	118682	ATL Applications
07A	118693	ATL Applications
08A	118694	ATL Applications
09A	118695	ATL Applications
10A	118696	ATL Applications
11A	118697	ATL Applications
12A	118698	ATL Applications
13A	118709	ATL Applications
14A	118710	ATL Applications
15A	118711	ATL Applications
16A	118712	ATL Applications
17A	Lab Blank	ATL Applications

Continued on next page

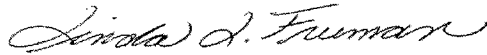
WORK ORDER #: 1011419A

Work Order Summary

CLIENT:	Mr. Brian Baker 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. #	17131
FAX:	781-247-4305	PROJECT #	17131
DATE RECEIVED:	11/18/2010	CONTACT:	Ausha Scott
DATE COMPLETED:	12/01/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
17B	Lab Blank	ATL Applications
18A	LCS	ATL Applications

CERTIFIED BY:



Laboratory Director

DATE: 12/01/10

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

**LABORATORY NARRATIVE
Hydrogen Sulfide by Radiello 170
Environmental Health & Engineering, Inc.
Workorder# 1011419A**

Sixteen Radiello 170 (H₂S) samples were received on November 18, 2010. 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 1443 minutes was used for the QC 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 # 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)
118677	1011419A-01A	11/15/2010	11/29/2010	1.00	0.80	0.54	ND	ND
118677 Lab Duplicate	1011419A-01AA	11/15/2010	11/29/2010	1.00	0.80	0.54	ND	ND
118678	1011419A-02A	11/15/2010	11/29/2010	1.00	0.80	0.54	ND	ND
118679	1011419A-03A	11/15/2010	11/29/2010	1.00	0.80	0.54	ND	ND
118680	1011419A-04A	11/15/2010	11/29/2010	1.00	0.80	0.54	ND	ND
118681	1011419A-05A	NA	11/29/2010	1.00	0.80	0.54	ND	ND
118682	1011419A-06A	NA	11/29/2010	1.00	0.80	0.54	ND	ND
118693	1011419A-07A	11/15/2010	11/29/2010	1.00	0.80	0.54	ND	ND
118694	1011419A-08A	11/15/2010	11/29/2010	1.00	0.80	0.54	ND	ND
118695	1011419A-09A	11/15/2010	11/29/2010	1.00	0.80	0.54	ND	ND
118696	1011419A-10A	11/15/2010	11/29/2010	1.00	0.80	0.54	ND	ND
118697	1011419A-11A	NA	11/29/2010	1.00	0.80	0.54	ND	ND
118698	1011419A-12A	NA	11/29/2010	1.00	0.80	0.54	ND	ND
118709	1011419A-13A	11/15/2010	11/29/2010	1.00	0.80	0.54	ND	ND
118710	1011419A-14A	11/15/2010	11/29/2010	1.00	0.80	0.54	ND	ND
118711	1011419A-15A	11/15/2010	11/29/2010	1.00	0.80	0.54	1.4	0.98
118712	1011419A-16A	11/15/2010	11/29/2010	1.00	0.80	0.54	ND	ND
Method Blank	1011419A-17A	NA	11/29/2010	1.00	0.80	0.54	ND	ND
Method Blank	1011419A-17B	NA	11/29/2010	1.00	0.80	0.54	ND	ND
LCS	1011419A-18A	NA	11/29/2010	1.00	0.80	0.54		112

COMMENTS: 1. NA=Not Applicable
 2. ND=Not Detected
 3. Exposure time of 20120 minutes was assumed for the QC samples.
 4. Background subtraction not performed.

Hydrogen Sulfide Radiello Calculation Worksheet

Workorder #: 1011419A

0.096 Typically 0.096 for H2S

Sampling Rate (ng/ppb.min)

25 Typically 25

Sampling T (deg C)

10.5 Typically 10.5 for H2S

Date of Analysis:

11/29/2010

Corrected Q

0.096 Takes into account temp

(Abs-Y-Int)/DF

Slope

Conc(ug/ml) x Vol (ml)

Conc (ug sulfide) * MW H2S

MW Sulfide

Q includes conversion from Sulfide to H2S

Conc (ug) x 1000

Q x Duration

DBP x mw

24.45

T Corrected, no Blank correction

Conc (ppb) of H2S

Conc (ug/m3) of H2S

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	118677	11/15/2010	0.048	20050	1.00	0.012920663	0.135669963	0.144178404	0.070	0.098
01AA	118677 Lab Duplicate	11/15/2010	0.048	20050	1.00	0.012920663	0.135669963	0.144178404	0.070	0.098
02A	118678	11/15/2010	0.047	20050	1.00	0.011993447	0.12593119	0.13383183	0.065	0.091
03A	118679	11/15/2010	0.049	20050	1.00	0.01384788	0.145402736	0.154524978	0.076	0.105
04A	118680	11/15/2010	0.063	20050	1.00	0.02862891	0.28170356	0.29937701	0.146	0.204
05A	118681	NA	0.025	20120	1.00	-0.008405316	-0.088255819	-0.093792792	-0.061	-0.064
06A	118682	NA	0.022	20120	1.00	-0.011186966	-0.117463138	-0.124832513	-0.061	-0.085
07A	118693	11/15/2010	0.091	20115	1.00	0.052790972	0.554305207	0.589081075	0.287	0.400
08A	118694	11/15/2010	0.069	20115	1.00	0.032392209	0.340118198	0.361456453	0.176	0.246
09A	118695	11/15/2010	0.062	20115	1.00	0.025901694	0.271967786	0.28930436	0.141	0.196
10A	118696	11/15/2010	0.05	20115	1.00	0.014775096	0.155138509	0.164871552	0.080	0.112
11A	118697	NA	0.023	20120	1.00	-0.0102659749	-0.107727365	-0.114485989	-0.056	-0.078
12A	118698	NA	0.024	20120	1.00	-0.009332533	-0.097991592	-0.104139365	-0.051	-0.071
13A	118709	11/15/2010	0.108	20120	1.00	0.068553652	0.71981335	0.764972828	0.373	0.519
14A	118710	11/15/2010	0.085	20120	1.00	0.056499838	0.583248299	0.63046737	0.307	0.428
15A	118711	11/15/2010	0.173	20120	1.00	0.128822724	1.352638603	1.43750012	0.700	0.976
16A	118712	11/15/2010	0.087	20120	1.00	0.049082106	0.515362114	0.54769478	0.267	0.372
17A	Method Blank	NA	0.024	20120	1.00	-0.031585728	-0.331650147	-0.352457135	#DIV/0!	#DIV/0!
17B	Method Blank	NA	0.025	20120	1.00	-0.031585728	-0.331650147	-0.352457135	#DIV/0!	#DIV/0!
18A	LCS	NA	0.195	20120	1.00	-0.031585728	-0.331650147	-0.352457135	#DIV/0!	#DIV/0!
				QC Duration						
				20120						
						CCV Spike Amt				
						0.133				

QC Results and Raw Data

Work Order: 1011419A

Date: 11/29/10

Method: Rad 170

Analyst: M. Skidmore

Wavelength: 665 nm

Standard ID	Concentration	ABS
	Sulfide (mg/mL)	
Level 1 1993-96 - E	0.0716	0.093
Level 2 - D	0.143	0.180
Level 3 - C	0.286	0.355
Level 4 - B	0.572	0.681
Level 5 - A	1.145	1.253
ICV 1993-97	0.286	0.350

$r = \frac{0.9981}{1.078}$
 $m = \frac{1.078}{0.03407}$
 $b = 0.03407$

ICV % Recovery = 102

Fraction	Dilution	ABS	Sample ID	Sample Volume	Comments
01A	1.00	0.048	118677	10.5 mL	
01AA		0.048	118677		
02A		0.047	118678		
03A		0.049	118679		
04A		0.063	118680		
05A		0.025	118681		
06A		0.022	118682		
07A		0.091	118693		
08A		0.069	118694		
09A		0.062	118695		
10A		0.050	118696		
11A		0.023	118697		
12A		0.024	118698		
13A		0.108	118709		
14A		0.095	118710		
15A		0.173	118711		
16A		0.087	118712		
BIK1		0.024	N/A		Lot: 10101
BIK2		0.025			↓
LCS		0.195			Lot: 10101, 0.133 mg/mL
CCV	↓	0.352	↓	5.0 mL	0.286 mg/mL
					MTS 11/29/10

Procedure:

- 1.) Add 10 mL of H₂O to sample tube, cap and vortex for 1 minute.
- 2.) Add 0.5 mL of Ferric Chloride-Amine solution and cap immediately.
- 3.) Allow color to develop for 30 minutes.
- 4.) Measure absorbance at 665nm.

MTS 11/29/10

Mil Skidmore
Signed

11/29/10
Date

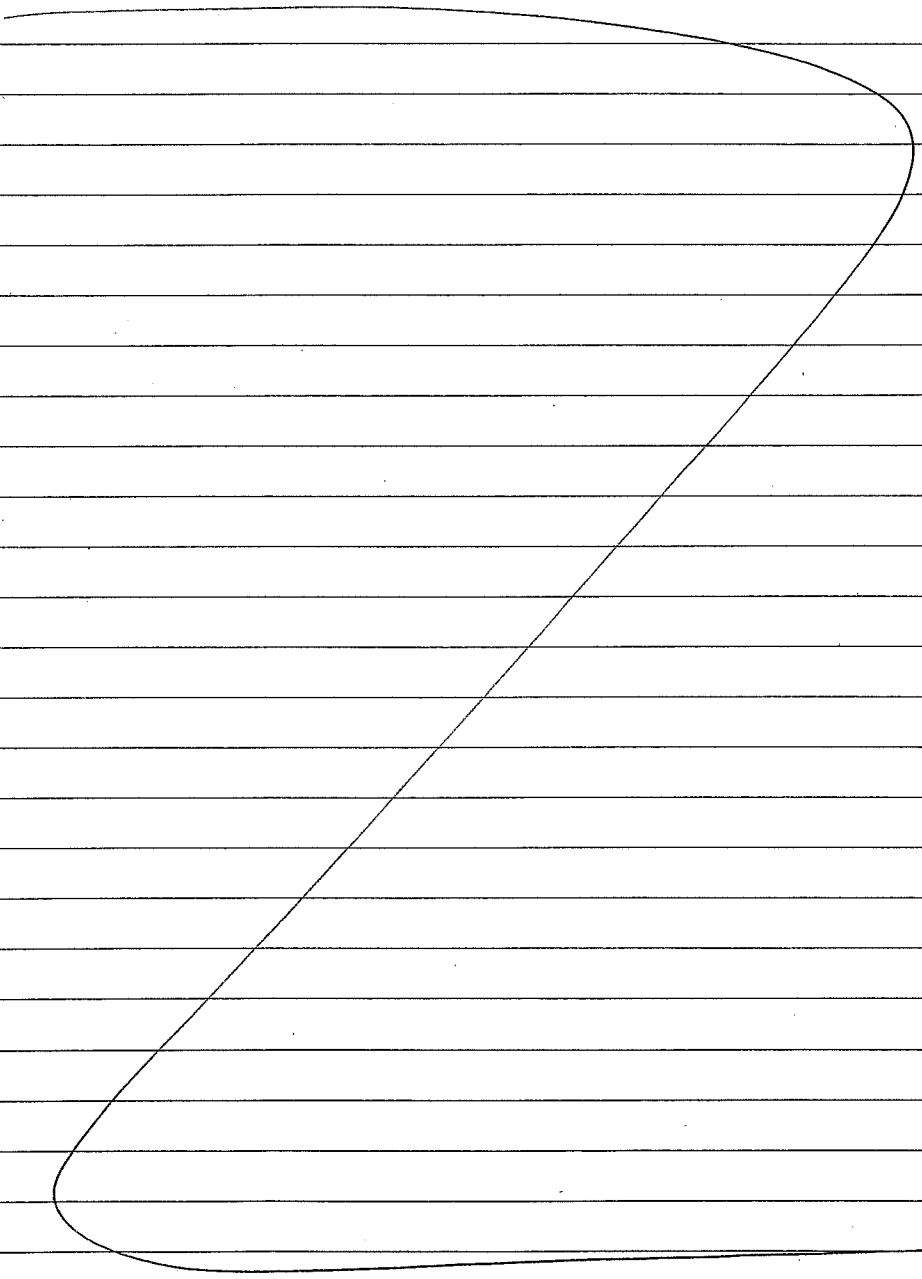
Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-77
Project: Ferric Chloride Solution Rad 170
Analyst: M. Skidmore
Preparation Date: 10/18/10
Expiration Date: 10/18/11

Solvent: HPLC H₂O
Solvent Lot #: DB 270

Procedure/Comments: Dissolve 125 g of ferric chloride hexahydrate
(located in ERAC, lot: 73297) in 50 mL of H₂O,



MJS 10/18/10

M. Skidmore 10/18/10
Signed Date

Fauzi
Reviewed

10/22/10
Date

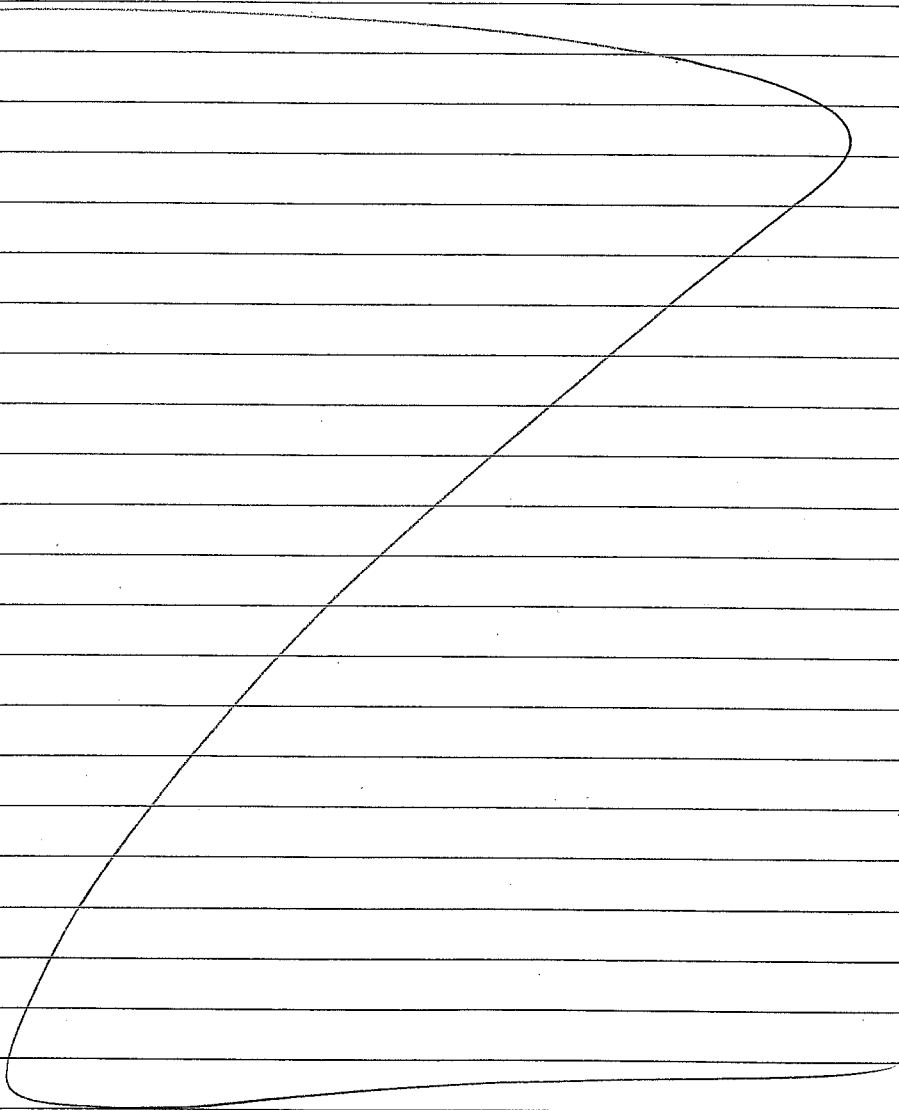
Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-94
Project: Amine solution Rad 170
Analyst: M. Skidmore
Preparation Date: 11/29/10
Expiration Date: 12/29/10

Solvent: HPLC H₂O
Solvent Lot #: DB812

Procedure/Comments: 0.1687 g of N,N-dimethyl-p-phenyldiammonium oxalate (located in ERIA; Lot: 63797PJ) was dissolved in a solution of 12.5 ml of sulfuric acid (lot: 01428LS) and 12.5 ml of HPLC grade H₂O (lot: DB812) for a total volume of 25 ml.



MJS 11/29/10

[Signature] 11/29/10
Signed Date

[Signature] 12/01/10
Reviewed Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-95

Project: Ferric chloride - Amine solution Rad 170

Analyst: M. Skidmore

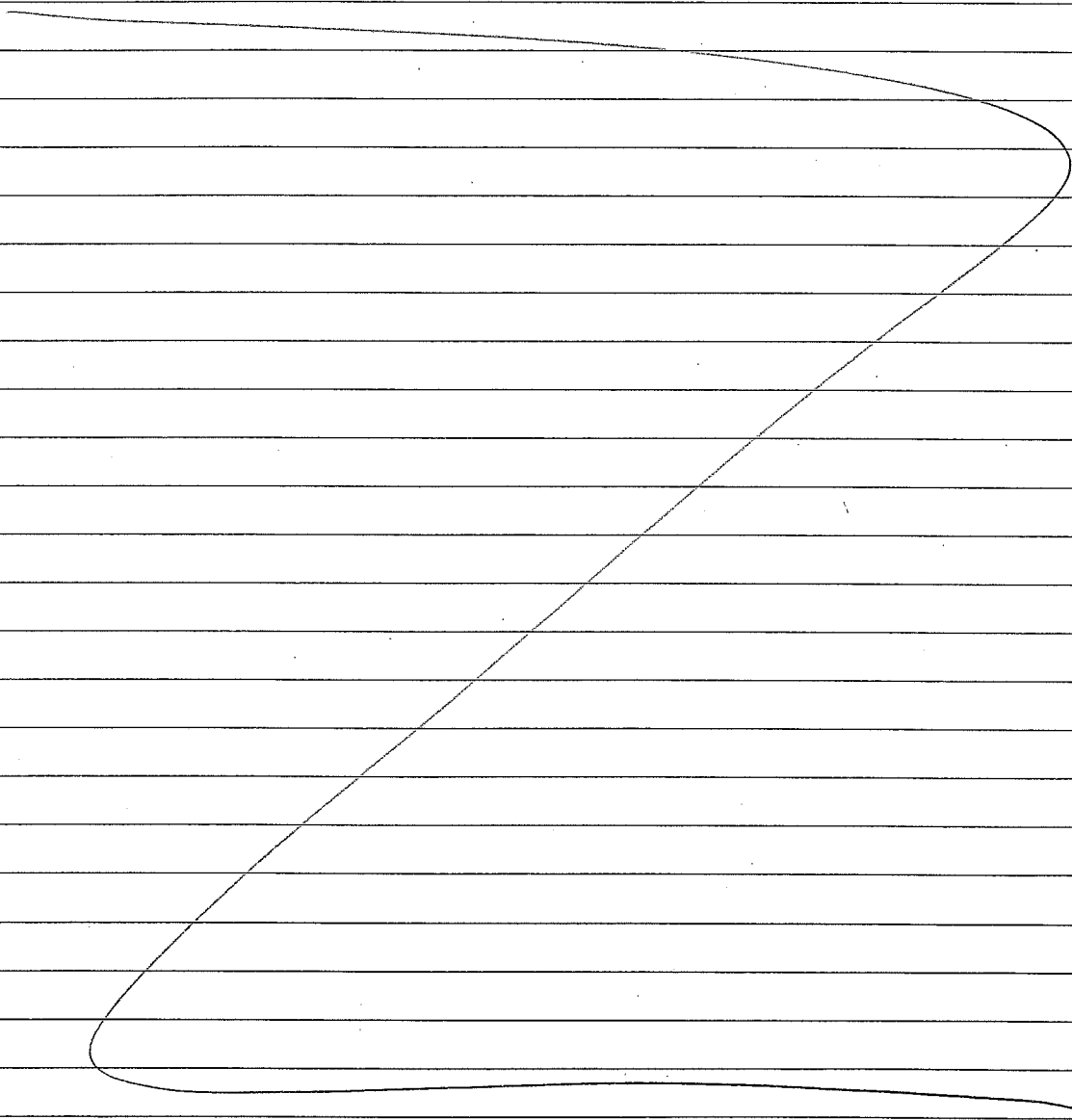
Preparation Date: 11/29/10

Expiration Date: 11/29/10

Solvent: HPLC H₂O

Solvent Lot #: DB812

Procedure/Comments: Add 4.0 mL of ferric chloride solution
(1993-77, exp 10/18/11) with 20 mL of Amine solution
(1993-94, exp 12/29/10).



MJS 11/29/10

Page 95 Milo Skidmore
Signed

11/29/10
Date

Tauzin
Reviewed

12/01/10
Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-96
Project: Rad 170 Calibration Curve
Analyst: M. Skidmore
Preparation Date: 11/29/10
Expiration Date: 11/29/10

Solvent: HPLC H₂O
Solvent Lot #: DB 812

Procedure/Comments:

Solution A: 2 mL of Code Rad 171 (1476-2077, exp 6/16/11) (located in ER1B) with 98 mL of D.I. H₂O = 1.145 µg/mL

Solution B: 2.5 mL of Solution A with 2.5 mL of D.I. H₂O = 0.572 µg/mL

Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H₂O = 0.286 µg/mL


Solution D: 0.625 mL of Solution A with 4.375 mL of D.I. H₂O = 0.143 µg/mL

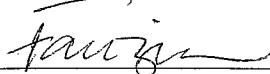
Solution E: 0.375 mL of Solution A with 5.625 mL of D.I. H₂O = 0.0716 µg/mL

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

MJS 11/29/10

MJS
11/29/10

 11/29/10
Signed Date

 12/02/10
Reviewed Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-97
Project: Rad 170 1CV
Analyst: Fauzia
Preparation Date: 11/29/10
Expiration Date: 11/29/10

Solvent: HPLC H2O
Solvent Lot #: DB 812

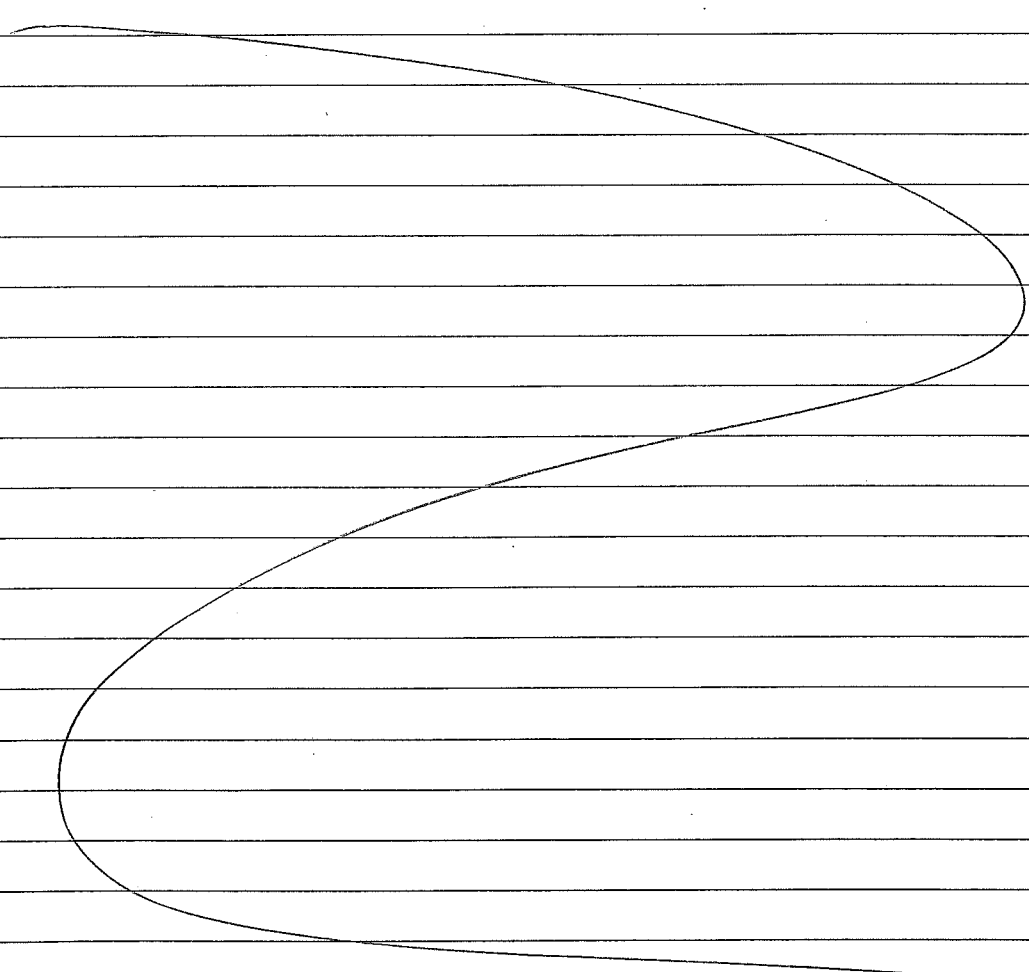
Procedure/Comments:

Solution A: 2 mL of Code Rad 171 (1476-2077, exp 6/16/11) (located in ER1B) with 98 mL of D.I. H₂O = 1.145 µg/mL

Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H₂O = 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.

MJS 11/29/10



fm
11/29/10

Fauzia
Signed

11/29/10
Date

Mil...
Reviewed

11/29/10
Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-98
Project: Rad 170 H₂S LCS
Analyst: M. SKI dmore
Preparation Date: 11/29/10
Expiration Date: 11/29/10

Solvent: HPLC H₂O
Solvent Lot #: DB 812

Procedure/Comments:

A Rad 170 cartridge (lot: 1010) was placed in a 40 mL VOA vial. 10.0 mL of D.I. H₂O was aliquoted into the vial. 1.0 mL of H₂S gas (1476-1497; 1000 ppm) was injected into the vial, into the H₂O. The solution was allowed to gently shake for 2 hours. Then 0.5 of the ferric-chloride-amine (1993-95) was added to the vial and capped immediately. The solution was allowed to sit for 30 minutes and the absorbance was measured at 665 nm.

MJS 11/29/10

This procedure was performed once for each laboratory batch.

MJS
11/29/10

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. Brian Baker
FAX #: 781-247-4305
FROM: Sample Receiving
Workorder #: 1011419A
of pages (Including Cover): 4

12/3/2010

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.

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 # 17131

The cost of this analysis will be covered by EH&E Purchase Order # 17131

For EH & E Data Coordinator - URGENT DATA

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER: Time/Date/Vol.		
01A 118677	Air/PASSIVE	H ₂ S ANALYSIS 11/10-11/10	13D 22H 10M		
02A 118678					
03A 118679					
04A 118680					
05A 118681					
06A 118682					
07A 118693				11/10-11/10	13D 23H 15M
08A 118694					
09A 118695					
10A 118696					
11A 118697					
12A 118698					
13A 118709				11/10-11/10	13D 23H 20M
14A 118710					
15A 118711					
16A 118712					

Special instructions:

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

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

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 11/17/10
 Received by: Alex Wilbit ATC of (company name) ATC Date: 11/18/10 09:00
 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 1011419A

Client	Phone	Date Promised: 12/03/10 11:59 pm
Mr. Brian Baker	800-825-5343	Date Completed: 12/1/10
Environmental Health & Engineering, Inc.	Fax	Date Received: 11/18/10
117 Fourth Avenue	781-247-4305	PO#: 17131
Needham, MA 02494		Project#: 17131
Sales Rep: TL		Total \$: \$ 1,360.00
		Logged By: MW

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
01A	118677	ATL Applications	11/15/2010	\$80.00
01AA	118677 Lab Duplicate	ATL Applications	11/15/2010	\$0.00
02A	118678	ATL Applications	11/15/2010	\$80.00
03A	118679	ATL Applications	11/15/2010	\$80.00
04A	118680	ATL Applications	11/15/2010	\$80.00
05A	118681	ATL Applications	NA	\$80.00
06A	118682	ATL Applications	NA	\$80.00
07A	118693	ATL Applications	11/15/2010	\$80.00
08A	118694	ATL Applications	11/15/2010	\$80.00
09A	118695	ATL Applications	11/15/2010	\$80.00
10A	118696	ATL Applications	11/15/2010	\$80.00
11A	118697	ATL Applications	NA	\$80.00
12A	118698	ATL Applications	NA	\$80.00
13A	118709	ATL Applications	11/15/2010	\$80.00
14A	118710	ATL Applications	11/15/2010	\$80.00
15A	118711	ATL Applications	11/15/2010	\$80.00
16A	118712	ATL Applications	11/15/2010	\$80.00
17A	Lab Blank	ATL Applications	NA	\$0.00
17B	Lab Blank	ATL Applications	NA	\$0.00
18A	LCS	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/14482

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

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:
		Date Completed:
		Date Received:
	Fax	PO#:
		Project#:
Sales Rep:		Total \$: \$ 1,360.00
		Logged By: MW

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
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/14482

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

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

Other Records



Method : ATL Application #59 H2S-Radiello 170

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

DATA REVIEW CHECKLIST Work Order #: 1011419A

A ₁	A ₂	W	T	R	Q	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The final report has the correct reporting list, special units, and header info.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Non-Standard sublist printed/verified, LOQ and LOD verified
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample Discrepancy Report (SDR) is completed
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Corrective Action issued - # _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unusual circumstances have been documented in the notes section below
						LUMEN validation report present and initialed CIRCLE (YES / NO)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lab Blank, CCV, LCS and DUP met QC criteria
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hold time is met for all samples
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate data qualifier flags are applied
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manual integrations for samples and QC are properly documented
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples analyzed within the project or method specific clock
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Retention times have been verified
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate ICAL(s) included, %RSD Recalculation
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	At least one result per sample is verified against the target quant sheets/raw data
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Correct amount of sample analyzed (i.e. sample not over-diluted)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICs resemble reference spectra
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICs between duplicate samples are consistent
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Data for multiple analyses of sample(s) has been evaluated for comparability of results
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special units for all samples in the final report are correctly calculated
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manually entered results checked (i.e. TPH/NMOC)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chain of Custody scanned correctly
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify sample id's vs. chain of custody
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Date MDL(s) performed per instrument(s) <u>10/25/10</u>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples pressurized w/ appropriate gas (N ₂ or He) <input type="checkbox"/> Other (i.e. Tedlar bag, cartridge, sorbent)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final pressure consistent with canister size (6L vs. 1L)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify receipt pressures
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify canister ID #'s
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final PDF report reviewed for correctness

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

A/R: 20120 minutes duration used for QC's and Trip Blanks

T/O: _____

A ₁ /A ₂	W/T	R*	Q
(Analytical Review/Date)	(Write-up/Tech Review/Date)	(Report Review/Date)	(QA Review/Date)
A ₁ <u>Milo Gledhill 12/1/10</u>	W: <u>Milo Gledhill 12/1/10</u>	R:	

A₂: _____ T: _____

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.
 Note (2): Report reviewer and write-up reviewer must be separate individuals for DoD & Client Specific projects.
 * Report Review is completed for DoD & Client Specific projects only.