@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

ATL Applications

INVENTORY SHEET

WORK ORDER # 1011419B

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Completed by:

Kara McKiernan	Kara McKiernan/ Document Control	12/03/10
(Signature)	(Print Name & Title)	(Date)

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1011419B

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		

FRACTION #	NAME	TEST
17A	118713	ATL Applications
18A	118714	ATL Applications
19A	118725	ATL Applications
20A	118726	ATL Applications
21A	118727	ATL Applications
22A	118728	ATL Applications
23A	118729	ATL Applications
24A	118730	ATL Applications
25A	118741	ATL Applications
26A	118742	ATL Applications
27A	118743	ATL Applications
28A	118744	ATL Applications
29A	118745	ATL Applications
30A	118746	ATL Applications
31A	118661	ATL Applications
32A	118662	ATL Applications
32AA	118662 Lab Duplicate	ATL Applications
33A	Lab Blank	ATL Applications

Continued on next page

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DATE RECEIVED:	11/18/2010	**CONTACT:**	Ausha Scott
DATE COMPLETED:	12/01/2010		

FRACTION #	NAME	TEST
33B	Lab Blank	ATL Applications
34A	LCS	ATL Applications

CERTIFIED BY: Linda L. Freeman

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# 1011419B

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 41760 minutes was used for the QC samples and trip blanks.

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)
118713	1011419B-17A	NA	11/29/2010	1.00	0.80	0.26	ND	ND
118714	1011419B-18A	NA	11/29/2010	1.00	0.80	0.26	ND	ND
118725	1011419B-19A	11/16/2010	11/29/2010	1.00	0.80	0.54	1.0	0.71
118726	1011419B-20A	11/16/2010	11/29/2010	1.00	0.80	0.54	ND	ND
118727	1011419B-21A	11/16/2010	11/29/2010	1.00	0.80	0.54	0.92	0.62
118728	1011419B-22A	11/16/2010	11/29/2010	1.00	0.80	0.54	1.6	1.1
118729	1011419B-23A	NA	11/29/2010	1.00	0.80	0.26	ND	ND
118730	1011419B-24A	NA	11/29/2010	1.00	0.80	0.26	ND	ND
118741	1011419B-25A	11/16/2010	11/29/2010	1.00	0.80	0.54	0.91	0.62
118742	1011419B-26A	11/16/2010	11/29/2010	1.00	0.80	0.54	0.89	0.60
118743	1011419B-27A	11/16/2010	11/29/2010	1.00	0.80	0.54	1.6	1.1
118744	1011419B-28A	11/16/2010	11/29/2010	1.00	0.80	0.54	ND	ND
118745	1011419B-29A	NA	11/29/2010	1.00	0.80	0.26	ND	ND
118746	1011419B-30A	NA	11/29/2010	1.00	0.80	0.26	ND	ND
118661	1011419B-31A	11/16/2010	11/29/2010	1.00	0.80	0.26	1.7	0.57
118662	1011419B-32A	11/16/2010	11/29/2010	1.00	0.80	0.26	1.4	0.47
118662 Lab Duplicate	1011419B-32AA	11/16/2010	11/29/2010	1.00	0.80	0.26	1.5	0.48
Method Blank	1011419B-33A	NA	11/29/2010	1.00	0.80	0.26	ND	ND
Method Blank	1011419B-33B	NA	11/29/2010	1.00	0.80	0.26	ND	ND
							%Rec	
LCS	1011419B-34A	NA	11/29/2010	1.00	0.80	0.26	97	

COMMENTS: 1. NA=Not Applicable
2. ND=Not Detected
3. Exposure time of 41760 minutes was assumed for the QC samples.
4. Background subtraction not performed.

Hydrogen Sulfide Radiello Calculation Worksheet

Workorder #: 1011419B

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: 11/29/2010

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
17A	118713	NA	0.027	41760	1.00	-0.006550883	-0.068784273	-0.073099644	-0.017	-0.024
18A	118714	NA	0.022	41760	1.00	-0.011186966	-0.117463138	-0.124832513	-0.029	-0.041
19A	118725	11/16/2010	0.135	20130	1.00	0.093588498	0.982679224	1.044330319	0.509	0.709
20A	118726	11/16/2010	0.099	20130	1.00	0.060208704	0.632191392	0.671853664	0.327	0.456
21A	118727	11/16/2010	0.123	20130	1.00	0.0824619	0.865849947	0.920171434	0.448	0.625
22A	118728	11/16/2010	0.185	20130	1.00	0.139949322	1.46946788	1.561659005	0.760	1.060
23A	118729	NA	0.021	41760	1.00	-0.012114182	-0.127198912	-0.135179086	-0.032	-0.044
24A	118730	NA	0.025	41760	1.00	-0.008405316	-0.088255819	-0.093792792	-0.022	-0.031
25A	118741	11/16/2010	0.122	20155	1.00	0.081534683	0.856114174	0.90982486	0.442	0.617
26A	118742	11/16/2010	0.12	20155	1.00	0.07968025	0.836642627	0.889131713	0.432	0.603
27A	118743	11/16/2010	0.189	20155	1.00	0.143658188	1.508410973	1.6030453	0.780	1.087
28A	118744	11/16/2010	0.105	20155	1.00	0.065772003	0.690606031	0.733933107	0.357	0.498
29A	118745	NA	0.024	41760	1.00	-0.009332533	-0.097991592	-0.104139365	-0.024	-0.034
30A	118746	NA	0.024	41760	1.00	-0.009332533	-0.097991592	-0.104139365	-0.024	-0.034
31A	118661	11/16/2010	0.202	41760	1.00	0.155712002	1.634976023	1.737550759	0.408	0.568
32A	118662	11/16/2010	0.172	41760	1.00	0.127895508	1.34290283	1.427153547	0.335	0.467
32AA	118662 Lab Duplicate	11/16/2010	0.175	41760	1.00	0.130677157	1.372110149	1.458193268	0.342	0.477
					1.00	-0.031585728	-0.331650147	-0.352457135	#DIV/0!	#DIV/0!
					1.00	-0.031585728	-0.331650147	-0.352457135	#DIV/0!	#DIV/0!
					1.00	-0.031585728	-0.331650147	-0.352457135	#DIV/0!	#DIV/0!
					1.00	-0.031585728	-0.331650147	-0.352457135	#DIV/0!	#DIV/0!
					1.00	-0.031585728	-0.331650147	-0.352457135	#DIV/0!	#DIV/0!
33A	Method Blank	NA	0.023	41760	1.00	-0.010259749	-0.107727365	-0.114485939	-0.027	-0.037
33B	Method Blank	NA	0.023	41760	1.00	-0.010259749	-0.107727365	-0.114485939	-0.027	-0.037
34A	LCS	NA	0.173	41760	1.00	0.128822724	1.352638603	1.43750012	0.337	0.470

QC Duration	CCV Spike Amt
41760	0.133

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 11/29/2010 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	Result (ppb) H2S	%Rec
0.072	0.752	0.798966249	0.19	0.261	ND	ND	ND	
0.072	0.752	0.798966249	0.19	0.261	ND	ND	ND	
0.072	0.752	0.798966249	0.39	0.542	1.044330319	0.708831444	0.508506802	
0.072	0.752	0.798966249	0.39	0.542	ND	ND	ND	
0.072	0.752	0.798966249	0.39	0.542	0.920171434	0.624559524	0.448051181	
0.072	0.752	0.798966249	0.39	0.542	1.561659005	1.059964447	0.76040522	
0.072	0.752	0.798966249	0.19	0.261	ND	ND	ND	
0.072	0.752	0.798966249	0.19	0.261	ND	ND	ND	
0.072	0.752	0.798966249	0.39	0.542	0.90982486	0.616770879	0.442463705	
0.072	0.752	0.798966249	0.39	0.542	0.889131713	0.602742981	0.432400266	
0.072	0.752	0.798966249	0.39	0.542	1.6030453	1.086705477	0.779588901	
0.072	0.752	0.798966249	0.39	0.542	ND	ND	ND	
0.072	0.752	0.798966249	0.19	0.261	ND	ND	ND	
0.072	0.752	0.798966249	0.19	0.261	ND	ND	ND	
0.072	0.752	0.798966249	0.19	0.261	1.737550759	0.568493985	0.407830466	
0.072	0.752	0.798966249	0.19	0.261	1.427153547	0.466937845	0.334975363	
0.072	0.752	0.798966249	0.19	0.261	1.458193268	0.477093459	0.342260873	
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!	#DIV/0!	
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!	#DIV/0!	
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!	#DIV/0!	
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!	#DIV/0!	
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!	#DIV/0!	
0.072	0.752	0.798966249	0.19	0.261	ND	ND	ND	
0.072	0.752	0.798966249	0.19	0.261	ND	ND	ND	%Rec
0.072	0.752	0.798966249	0.19	0.261	1.43750012	0.47032305	0.337403866	97

ug/ml of sulfide	absorbance
0	0
0.0716	0.093
0.143	0.18
0.286	0.355
0.572	0.681
1.145	1.253

Slope	1.078496784
Y-int	0.034065106
R2	0.998068576

QC Results and Raw Data

Spectrophotometer Logbook **@Air Toxics Ltd.** **Logbook#: 1927**

Work Order: 1011419B/C **Date:** 11/29/10 **Method:** Rad 170

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

Standard ID	Concentration	ABS
	Sulfide (µg/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 = 0.9981
m = 1.078
b = 0.03407

ICV % Recovery = ~~105~~ 102
MJS 12/1/10

Fraction	Dilution	ABS	Sample ID	Sample Volume	Comments
17A	1.00	0.027	118713	10.5mL	
18A		0.022	118714		
19A		0.135	118725		
20A		0.099	118726		
21A		0.123	118727		
22A		0.185	118728		
23A		0.021	118729		
24A		0.025	118730		
25A		0.122	118741		
26A		0.120	118742		
27A		0.189	118743		
28A		0.105	118744		
29A		0.024	118745		
30A		0.024	118746		
31A		0.202	118661		
32A		0.172	118662		
32AA		0.175			
33A		0.117	118663		
34A		0.163	118664		
35A		0.023	118665		
36A		0.023	118666		
BLK1		0.023	N/A		Lot: 10101

Procedure:

1.) Add 10 mL of H_20 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.

MJS 11/29/10

Signed 11/29/10 Date

continued

Spectrophotometer Logbook **@Air Toxics Ltd.** **Logbook#: 1927**

Work Order: _____ **Date:** _____ **Method:** _____

Analyst: _____ **Wavelength:** _____

Standard ID	Concentration	ABS
	Page 78	
Level 1	See	
Level 2		
Level 3		
Level 4		
Level 5		
ICV		

r = See Page 78
m =
b =

ICV % Recovery = _____

Fraction	Dilution	ABS	Sample ID	Sample Volume	Comments
BLK2	1.00	0.023	N/A	10.5mL	Lot: 10101
LCS	↓	0.173	↓	↓	Lot: 10101, 0.133 µg/mL
CCV	↓	0.359	↓	5.0mL	, 0.286 µg/mL
					MJS 11/29/10

Procedure:

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 H_2O
Solvent Lot #: OB270

Procedure/Comments: Dissolve 125 g of ferric chloride hexahydrate (located in ERAC, lot: 73297) in 50 mL of H_2O.

MJS 10/18/10

Signed 10/18/10 Date

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 H_2O
Solvent Lot #: DB812

Procedure/Comments: 0.1687 g of N,N-dimethyl-p-phenylendiammonium 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 H_2O (lot: DB812) for a total volume of 25 mL.

MJS 11/29/10

Signed: [signature] Date: 11/29/10 Reviewed: [signature] Date: 12/06/10

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 H_2O
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

Signed: [signature] Date: 11/29/10 Reviewed: [signature] Date: 12/02/10

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 H_2O
Solvent Lot #: DB812

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. 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 11/29/10

MJS
11/29/10

Signed 11/29/10 Date Reviewed 12/01/10 Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-97
Project: Rad 170 ICV
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. 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.

MJS 11/29/10

fm
11/29/10

Fauzia 11/29/10 Signed Date

Reviewed 11/29/10 Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-98
Project: Rad 170 H_2S LCS
Analyst: M. Skidmore
Preparation Date: 11/29/10
Expiration Date: 11/29/10

Solvent: HPLC H_2O
Solvent Lot #: DB812

Procedure/Comments:

A Rad 170 cartridge (lot: 10101) was placed in a 40 mL VOA vial. 10.0 mL of D.I. H_2O was aliquoted into the vial. 1.0 mL of H_2S gas (1476-1497; 1000 ppm) was injected into the vial, into the H_2O. 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

Signed 11/29/10 Date Reviewed 12/01/10 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. Brian Baker
FAX #: 781-247-4305
FROM: Sample Receiving
Workorder #: 1011419B
# of pages (Including Cover): 4

12/3/2010

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.

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

1011419

DATE: 17 Nov 10

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.
17A	118713	Air/Passive	H_2S Analysis	ø
18A	118714			
19A	118725		11/2/10 - 11/16/10	13D 23H 30M
20A	118726			
21A	118727			
22A	118728			
23A	118729			ø
24A	118730			
25A	118741		11/2/10 - 11/16/10	13D 23H 55M
26A	118742			
27A	118743			
28A	118744			
29A	118745			ø
30A	118746			
31A	118661		10/19/10 - 11/16/10	
32A	118662			

Special instructions:

☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____

☐ Fax results 781-247-4305

☐ **RETURN SAMPLES** ☒ Electronic transfer - datacoordinator@eheinc.com

☒ Additional report recipient bbaker@eheinc.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: [signature] of (company name) ATL 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: _____

CUSTODY SEAL INTACT? Y N (NONE) TEMP 4.5°C Fed Ex

Page 2 of 3

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

Air Toxics LTD.
Laboratory Services Since 1989

SAMPLE RECEIPT SUMMARY

WORKORDER 1011419B

Client

Mr. Brian Baker
Environmental Health &
Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Phone

800-825-5343

Fax

781-247-4305

Date Promised: 12/03/10 11:59 pm
Date Completed: 12/1/10
Date Received: 11/18/10
PO#: 17131
Project#: 17131

Total $: $ 1,360.00
Logged By: MW

Sales Rep: TL

Fraction	Sample #	Analysis	Collected	Amount$
17A	118713	ATL Applications	NA	$80.00
18A	118714	ATL Applications	NA	$80.00
19A	118725	ATL Applications	11/16/2010	$80.00
20A	118726	ATL Applications	11/16/2010	$80.00
21A	118727	ATL Applications	11/16/2010	$80.00
22A	118728	ATL Applications	11/16/2010	$80.00
23A	118729	ATL Applications	NA	$80.00
24A	118730	ATL Applications	NA	$80.00
25A	118741	ATL Applications	11/16/2010	$80.00
26A	118742	ATL Applications	11/16/2010	$80.00
27A	118743	ATL Applications	11/16/2010	$80.00
28A	118744	ATL Applications	11/16/2010	$80.00
29A	118745	ATL Applications	NA	$80.00
30A	118746	ATL Applications	NA	$80.00
31A	118661	ATL Applications	11/16/2010	$80.00
32A	118662	ATL Applications	11/16/2010	$80.00
32AA	118662 Lab Duplicate	ATL Applications	11/16/2010	$0.00
33A	Lab Blank	ATL Applications	NA	$0.00
33B	Lab Blank	ATL Applications	NA	$0.00
34A	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

Air Toxics LTD.
Laboratory Services Since 1989

SAMPLE RECEIPT SUMMARY Continued

Client

Phone

Fax

Date Promised:
Date Completed:
Date Received:
PO#:
Project#:

Sales Rep:

Total $: $ 1,360.00
Logged By: MW

Fraction	Sample #	Analysis	Collected	Amount$
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

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

DATA REVIEW CHECKLIST

Work Order #: 1011419B

A_1	A_2	W	T	R	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.
N/A	☐	N/A				Non-Standard sublist printed/verified, LOQ and LOD verified
		☑	☐	☐	☐	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
		☐	☐	☐	☐	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, %RSD Recalculation
		☑	☐		☐	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)
		☐	☐			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
		N/A	☐			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) 10/25/10
N/A	☐	N/A				Samples pressurized w/ appropriate gas (N_2 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.)
		☑	☐	☐		Final PDF report reviewed for correctness

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

A/R: 41760 minutes duration used for QC's and Trip Blanks

T/Q:

A_1/A_2 (Analytical Review/Date)	W/T (Write-up/Tech Review/Date)	R* (Report Review/Date)	Q (QA Review/Date)
A_1: [signature] 12/1/10	W: [signature] 12/1/10	R:	
A_2:	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.