



AN ENVIRONMENTAL ANALYTICAL LABORATORY

12/29/2008

Mr. Doug Herlocker
Tetra Tech
3380 Americana Terrace, Suite 201

Boise ID 83706

Project Name: BMI
Project #: 103P0333

Dear Mr. Doug Herlocker

The following report includes the data for the above referenced project for sample(s) received on 12/10/2008 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-13A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

A handwritten signature in black ink that reads 'Kelly Buettner'. The signature is fluid and cursive, with the first and last names clearly legible.

Kelly Buettner
Project Manager



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0812273B

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 3380 Americana Terrace, Suite 201 Boise, ID 83706	BILL TO:	Mr. Doug Herlocker Tetra Tech 3380 Americana Terrace, Suite 201 Boise, ID 83706
PHONE:	208-389-1030	P.O. #	103P0333.005
FAX:		PROJECT #	103P0333 BMI
DATE RECEIVED:	12/10/2008	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/29/2008		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
03A	OFF02-120808BS	Modified TO-13A
04A	Lab Blank	Modified TO-13A
05A	LCS	Modified TO-13A

CERTIFIED BY:

Laboratory Director

DATE: 12/29/08

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-13A
Tetra Tech
Workorder# 0812273B

One PUF/XAD Cartridge sample was received on December 10, 2008. The laboratory performed the analysis for polycyclic aromatic hydrocarbons in air by modified EPA Method TO-13A. The PUF/XAD samples were extracted using Pressurized Fluid Extraction (PFE) by EPA Method 3545A. The sample extract was then concentrated to 1.0 mL and analyzed by GC/MS in the full scan mode.

Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-13A</i>	<i>ATL Modifications</i>
Extraction Solvent	10% ether in hexane for PUF; DCM for XAD sorbent. Final extract in hexane.	DCM for PUF/XAD cartridge and XAD sorbent. Final extract in DCM.
Glassware Cleaning	Muffle furnace is utilized.	Solvent cleaning procedure is used.
Extraction technique	Soxhlet extraction	Soxhlet extraction or pressurized fluid extraction (PFE).
Calibration range	0.10 to 2.5 ug/mL	1.0 ug/mL to 160 ug/mL
Field surrogates	Deuterated PAHs are spiked on media prior to sampling.	Performed by client request only.
Solvent Process Blank	Required each analytical batch.	Not performed; each solvent lot is certified prior to use.
Method Blank	<Method Detection Limit	<Reporting Limit

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The reporting limit of Di-n-Octylphthalate was raised to 10 ug/mL. Changing the reporting limits caused some previously reported compounds to be below the reporting limit and were therefore reported as "not detected".

Di-n-Butylphthalate was detected in the Laboratory Blank. Due to the nature of PUF/XAD2 extraction it is not possible to re-extract the associated samples. Associated results are "B" flagged.

Definition of Data Qualifying Flags

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

E - Exceeds instrument calibration range.

Q - Exceeds quality control limits.

S - Saturated peak.

J - Estimated value.

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

U - Compound analyzed for but not detected above the reporting limit.

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Client Sample ID: OFF02-120808BS

Lab ID#: 0812273B-03A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: OFF02-120808BS

Lab ID#: 0812273B-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	v121223	Date of Collection: 12/8/08
Dil. Factor:	1.00	Date of Analysis: 12/12/08 06:20 PM
		Date of Extraction: 12/11/08

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected
2-Methylphenol (o-Cresol)	5.0	Not Detected
bis(2-Chloroisopropyl) Ether	1.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol/3-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
Benzoic Acid	30	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	Not Detected
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: OFF02-120808BS

Lab ID#: 0812273B-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	v121223	Date of Collection: 12/8/08
Dil. Factor:	1.00	Date of Analysis: 12/12/08 06:20 PM
		Date of Extraction: 12/11/08

Compound	Rpt. Limit (ug)	Amount (ug)
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	10	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

Container Type: PUF/XAD Cartridge

Surrogates	%Recovery	Method Limits
2-Fluorophenol	89	50-150
Phenol-d5	94	50-150
Nitrobenzene-d5	92	50-150
2,4,6-Tribromophenol	85	50-150



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Client Sample ID: OFF02-120808BS

Lab ID#: 0812273B-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	v121223	Date of Collection: 12/8/08
Dil. Factor:	1.00	Date of Analysis: 12/12/08 06:20 PM
		Date of Extraction: 12/11/08

Surrogates	%Recovery	Method Limits
Fluorene-d10	79	60-120
Pyrene-d10	87	60-120



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0812273B-04A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	v121221	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/12/08 05:25 PM
		Date of Extraction: 12/11/08

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected
2-Methylphenol (o-Cresol)	5.0	Not Detected
bis(2-Chloroisopropyl) Ether	1.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol/3-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
Benzoic Acid	30	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	Not Detected
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0812273B-04A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	v121221	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/12/08 05:25 PM
		Date of Extraction: 12/11/08

Compound	Rpt. Limit (ug)	Amount (ug)
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	9.5
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	10	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
2-Fluorophenol	79	50-150
Phenol-d5	85	50-150
Nitrobenzene-d5	84	50-150
2,4,6-Tribromophenol	82	50-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0812273B-04A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	v121221	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/12/08 05:25 PM
		Date of Extraction: 12/11/08

Surrogates	%Recovery	Method Limits
Fluorene-d10	75	60-120
Pyrene-d10	85	60-120



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0812273B-05A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	v121222	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/12/08 05:52 PM
		Date of Extraction: 12/11/08

Compound	%Recovery
Phenol	81
bis(2-Chloroethyl) Ether	Not Spiked
2-Chlorophenol	84
1,3-Dichlorobenzene	Not Spiked
1,4-Dichlorobenzene	75
1,2-Dichlorobenzene	Not Spiked
2-Methylphenol (o-Cresol)	Not Spiked
bis(2-Chloroisopropyl) Ether	Not Spiked
N-Nitroso-di-n-propylamine	91
4-Methylphenol/3-Methylphenol	Not Spiked
Hexachloroethane	Not Spiked
Nitrobenzene	Not Spiked
Isophorone	Not Spiked
2-Nitrophenol	Not Spiked
2,4-Dimethylphenol	Not Spiked
Benzoic Acid	Not Spiked
bis(2-Chloroethoxy) Methane	Not Spiked
2,4-Dichlorophenol	Not Spiked
1,2,4-Trichlorobenzene	74
Naphthalene	Not Spiked
4-Chloroaniline	Not Spiked
Hexachlorobutadiene	Not Spiked
4-Chloro-3-methylphenol	86
2-Methylnaphthalene	Not Spiked
Hexachlorocyclopentadiene	Not Spiked
2,4,6-Trichlorophenol	Not Spiked
2,4,5-Trichlorophenol	Not Spiked
2-Chloronaphthalene	Not Spiked
2-Nitroaniline	Not Spiked
Dimethylphthalate	Not Spiked
Acenaphthylene	Not Spiked
2,6-Dinitrotoluene	Not Spiked
3-Nitroaniline	Not Spiked
Acenaphthene	82
2,4-Dinitrophenol	Not Spiked
4-Nitrophenol	78
2,4-Dinitrotoluene	84
Dibenzofuran	Not Spiked



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0812273B-05A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	v121222	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/12/08 05:52 PM
		Date of Extraction: 12/11/08

Compound	%Recovery
Diethylphthalate	Not Spiked
Fluorene	Not Spiked
4-Chlorophenyl-phenyl Ether	Not Spiked
4-Nitroaniline	Not Spiked
4,6-Dinitro-2-methylphenol	Not Spiked
N-Nitrosodiphenylamine	Not Spiked
4-Bromophenyl-phenyl Ether	Not Spiked
Hexachlorobenzene	Not Spiked
Pentachlorophenol	81
Phenanthrene	Not Spiked
Anthracene	Not Spiked
di-n-Butylphthalate	Not Spiked
Fluoranthene	Not Spiked
Pyrene	86
Butylbenzylphthalate	Not Spiked
3,3'-Dichlorobenzidine	Not Spiked
Chrysene	Not Spiked
Benzo(a)anthracene	Not Spiked
bis(2-Ethylhexyl)phthalate	Not Spiked
Di-n-Octylphthalate	Not Spiked
Benzo(b)fluoranthene	Not Spiked
Benzo(k)fluoranthene	Not Spiked
Benzo(a)pyrene	Not Spiked
Indeno(1,2,3-c,d)pyrene	Not Spiked
Dibenz(a,h)anthracene	Not Spiked
Benzo(g,h,i)perylene	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
2-Fluorophenol	76	50-150
Phenol-d5	82	50-150
Nitrobenzene-d5	87	50-150
2,4,6-Tribromophenol	86	50-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0812273B-05A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	v121222	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/12/08 05:52 PM
		Date of Extraction: 12/11/08

Surrogates	%Recovery	Method Limits
Fluorene-d10	76	60-120
Pyrene-d10	83	60-120