

8/14/2023

Mr. Bryan Engelsen

ERM Northern Division (formerly ERM-North Central)

One Continental Towers

1701 Golf Road, Suite 1-700

Rolling Meadows IL 60008-4242

Project Name: AMEREN-TAYLORVILLE

Project #: 0693965

Workorder #: 2308011

Dear Mr. Bryan Engelsen

The following report includes the data for the above referenced project for sample(s) received on 8/1/2023 at Eurofins Air Toxics LLC.

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 Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Joel Tillman at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Joel Tillman

Project Manager

**WORK ORDER #: 2308011**

Work Order Summary

**CLIENT:** Mr. Bryan Engelsen  
ERM Northern Division (formerly  
ERM-North Central)  
One Continental Towers  
1701 Golf Road, Suite 1-700  
Rolling Meadows, IL 60008-4242  
847-258-8991

**PHONE:**

**FAX:** 847-258-8901

**DATE RECEIVED:** 08/01/2023

**DATE COMPLETED:** 08/14/2023

**BILL TO:** Accounts Payable  
ERM Northern Division (formerly  
ERM-North Central)  
One Continental Towers  
1701 Golf Road, Suite 1-700

**P.O. #** 012633-1257

**PROJECT #** 0693965 AMEREN-TAYLORVILLE

**CONTACT:** Joel Tillman

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	20230727-0731-SAM1	Modified TO-13A
02A	20230727-0731-SAM6	Modified TO-13A
03A	20230727-0731-SAM2	Modified TO-13A
04A	20230727-0731-SAM3	Modified TO-13A
05A	20230727-0731-SAM4	Modified TO-13A
06A	20230727-0731-SAM5	Modified TO-13A
07A	Lab Blank	Modified TO-13A
08A	CCV	Modified TO-13A
09A	LCS	Modified TO-13A
09AA	LCSD	Modified TO-13A

CERTIFIED BY:   
Technical Director

DATE: 08/14/23

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP – 209222, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP – T104704434-22-18, UT NELAP – CA009332022-14, VA NELAP - 12240, WA ELAP - C935  
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program) CA300005-017  
Eurofins Environment Testing Northern California, LLC certifies that the test results contained in this report meet all requirements of the 2016 TNI Standard.

*This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.*  
180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

**LABORATORY NARRATIVE**  
**Modified TO-13A**  
**ERM Northern Division (formerly ERM-North Central)**  
**Workorder# 2308011**

Six PUF/XAD Cartridge-Low Volume samples were received on August 01, 2023. 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.

To meet the quality control objectives outlined in Method TO-13A, a field blank is required for each sampling episode. If field blanks are not provided to the laboratory, any attendant risk to data quality is the responsibility of the data user.

The frequency of matrix spikes are determined by the different monitoring programs. Matrix spikes are not included in the routine calibration specifications for TO-13A.

<i>Requirement</i>	<i>TO-13A</i>	<i>ATL Modifications</i>
Initial Calibration	Calibration range: 0.1-2.5 ug/mL in Hexane	Calibration range: 1.0-500 ug/mL in Methylene chloride
Method Blank	<MDL	<Reporting limit
Surrogate Recoveries	60-120%	50-150% for Field Surrogates Fluoranthene-d10 and Benzo(a)pyrene-d12

**Receiving Notes**

The Chain of Custody (COC) information for sample 20230727-0731-SAM6 did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

The custody seals arrived broken and analysis proceeded.

**Analytical Notes**

The sample cartridges were pre-spiked with Fluoranthene-d10 and Benzo(a)Pyrene-d12 on 07/05/2023.

**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, LOD, or MDL value. See data page for project specific U-flag definition.

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

Preliminary

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

**Client Sample ID: 20230727-0731-SAM1**

**Lab ID#: 2308011-01A**

No Detections Were Found.

**Client Sample ID: 20230727-0731-SAM6**

**Lab ID#: 2308011-02A**

No Detections Were Found.

**Client Sample ID: 20230727-0731-SAM2**

**Lab ID#: 2308011-03A**

No Detections Were Found.

**Client Sample ID: 20230727-0731-SAM3**

**Lab ID#: 2308011-04A**

No Detections Were Found.

**Client Sample ID: 20230727-0731-SAM4**

**Lab ID#: 2308011-05A**

No Detections Were Found.

**Client Sample ID: 20230727-0731-SAM5**

**Lab ID#: 2308011-06A**

No Detections Were Found.

Client Sample ID: 20230727-0731-SAM1

Lab ID#: 2308011-01A

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

File Name:	12081022	Date of Collection: 7/31/23 9:14:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/10/23 05:36 PM
		Date of Extraction: 8/7/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	99	60-120
Pyrene-d10	100	60-120
Benzo(a)pyrene-d12	91	50-150
Fluoranthene-d10	96	50-150

Client Sample ID: 20230727-0731-SAM6

Lab ID#: 2308011-02A

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

File Name:	12081023	Date of Collection: 7/31/23 10:10:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/10/23 06:06 PM
		Date of Extraction: 8/7/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	87	60-120
Pyrene-d10	92	60-120
Benzo(a)pyrene-d12	103	50-150
Fluoranthene-d10	97	50-150

Client Sample ID: 20230727-0731-SAM2

Lab ID#: 2308011-03A

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

File Name:	12081024	Date of Collection: 7/31/23 9:33:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/10/23 06:36 PM
		Date of Extraction: 8/7/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	96	60-120
Pyrene-d10	103	60-120
Benzo(a)pyrene-d12	78	50-150
Fluoranthene-d10	93	50-150



Client Sample ID: 20230727-0731-SAM3

Lab ID#: 2308011-04A

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

File Name:	12081025	Date of Collection: 7/31/23 9:37:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/10/23 07:06 PM
		Date of Extraction: 8/7/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	88	60-120
Pyrene-d10	90	60-120
Benzo(a)pyrene-d12	64	50-150
Fluoranthene-d10	80	50-150

Client Sample ID: 20230727-0731-SAM4

Lab ID#: 2308011-05A

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

File Name:	12081026	Date of Collection: 7/31/23 9:50:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/10/23 07:36 PM
		Date of Extraction: 8/7/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	93	60-120
Pyrene-d10	98	60-120
Benzo(a)pyrene-d12	83	50-150
Fluoranthene-d10	95	50-150

Client Sample ID: 20230727-0731-SAM5

Lab ID#: 2308011-06A

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

File Name:	12081027	Date of Collection: 7/31/23 10:03:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/10/23 08:06 PM
		Date of Extraction: 8/7/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	92	60-120
Pyrene-d10	97	60-120
Benzo(a)pyrene-d12	59	50-150
Fluoranthene-d10	80	50-150

Client Sample ID: Lab Blank

Lab ID#: 2308011-07A

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

File Name:	12081021	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/10/23 05:06 PM
		Date of Extraction: 8/7/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	91	60-120
Pyrene-d10	91	60-120
Benzo(a)pyrene-d12	112	50-150
Fluoranthene-d10	100	50-150

Client Sample ID: CCV

Lab ID#: 2308011-08A

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

File Name:	12081018	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/10/23 03:36 PM
		Date of Extraction: NA

Compound	%Recovery
Naphthalene	112
2-Methylnaphthalene	112
2-Chloronaphthalene	116
Acenaphthylene	112
Acenaphthene	108
Fluorene	110
Phenanthrene	108
Anthracene	110
Fluoranthene	110
Pyrene	108
Chrysene	108
Benzo(a)anthracene	109
Benzo(b)fluoranthene	116
Benzo(k)fluoranthene	112
Benzo(a)pyrene	112
Indeno(1,2,3-c,d)pyrene	124
Dibenz(a,h)anthracene	122
Benzo(g,h,i)perylene	122

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	110	70-130
Pyrene-d10	107	70-130
Benzo(a)pyrene-d12	114	70-130
Fluoranthene-d10	111	70-130

Client Sample ID: LCS

Lab ID#: 2308011-09A

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

File Name:	12081019	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/10/23 04:06 PM
		Date of Extraction: 8/7/23

Compound	%Recovery	Method Limits
Naphthalene	74	60-120
2-Methylnaphthalene	82	60-120
2-Chloronaphthalene	86	60-120
Acenaphthylene	82	60-120
Acenaphthene	79	60-120
Fluorene	88	60-120
Phenanthrene	89	60-120
Anthracene	92	60-120
Fluoranthene	92	60-120
Pyrene	91	60-120
Chrysene	91	60-120
Benzo(a)anthracene	95	60-120
Benzo(b)fluoranthene	95	60-120
Benzo(k)fluoranthene	93	60-120
Benzo(a)pyrene	93	60-120
Indeno(1,2,3-c,d)pyrene	108	60-120
Dibenz(a,h)anthracene	101	60-120
Benzo(g,h,i)perylene	103	60-120

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	87	60-120
Pyrene-d10	89	60-120
Benzo(a)pyrene-d12	106	50-150
Fluoranthene-d10	89	50-150

Client Sample ID: LCSD

Lab ID#: 2308011-09AA

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

File Name:	12081020	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/10/23 04:36 PM
		Date of Extraction: 8/7/23

Compound	%Recovery	Method Limits
Naphthalene	77	60-120
2-Methylnaphthalene	86	60-120
2-Chloronaphthalene	93	60-120
Acenaphthylene	86	60-120
Acenaphthene	84	60-120
Fluorene	91	60-120
Phenanthrene	90	60-120
Anthracene	94	60-120
Fluoranthene	95	60-120
Pyrene	95	60-120
Chrysene	93	60-120
Benzo(a)anthracene	98	60-120
Benzo(b)fluoranthene	104	60-120
Benzo(k)fluoranthene	92	60-120
Benzo(a)pyrene	98	60-120
Indeno(1,2,3-c,d)pyrene	104	60-120
Dibenz(a,h)anthracene	102	60-120
Benzo(g,h,i)perylene	103	60-120

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	92	60-120
Pyrene-d10	97	60-120
Benzo(a)pyrene-d12	120	50-150
Fluoranthene-d10	98	50-150

8/14/2023

Mr. Bryan Engelsen

ERM Northern Division (formerly ERM-North Central)

One Continental Towers

1701 Golf Road, Suite 1-700

Rolling Meadows IL 60008-4242

Project Name: AMEREN-TAYLORVILLE

Project #: 0693965

Workorder #: 2308097

Dear Mr. Bryan Engelsen

The following report includes the data for the above referenced project for sample(s) received on 8/7/2023 at Eurofins Air Toxics LLC.

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 Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Joel Tillman at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Joel Tillman

Project Manager



**WORK ORDER #: 2308097**

Work Order Summary

**CLIENT:** Mr. Bryan Engelsen  
ERM Northern Division (formerly  
ERM-North Central)  
One Continental Towers  
1701 Golf Road, Suite 1-700  
Rolling Meadows, IL 60008-4242  
847-258-8991

**PHONE:**

**FAX:** 847-258-8901

**DATE RECEIVED:** 08/07/2023

**DATE COMPLETED:** 08/14/2023

**BILL TO:** Accounts Payable  
ERM Northern Division (formerly  
ERM-North Central)  
One Continental Towers  
1701 Golf Road, Suite 1-700

**P.O. #** 012633-1257

**PROJECT #** 0693965 AMEREN-TAYLORVILLE

**CONTACT:** Joel Tillman

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	20230731-0803-SAM1	Modified TO-13A
02A	20230731-0803-SAM2	Modified TO-13A
03A	20230731-0803-SAM3	Modified TO-13A
04A	20230731-0803-SAM4	Modified TO-13A
05A	20230731-0803-SAM5	Modified TO-13A
06A	20230731-0803-SAM6	Modified TO-13A
07A	Lab Blank	Modified TO-13A
08A	CCV	Modified TO-13A
08B	CCV	Modified TO-13A
09A	LCS	Modified TO-13A
09AA	LCSD	Modified TO-13A

CERTIFIED BY:



Technical Director

DATE: 08/14/23

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP – 209222, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP – T104704434-22-18, UT NELAP – CA009332022-14, VA NELAP - 12240, WA ELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program) CA300005-017

Eurofins Environment Testing Northern California, LLC certifies that the test results contained in this report meet all requirements of the 2016 TNI Standard.

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

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

**LABORATORY NARRATIVE**  
**Modified TO-13A**  
**ERM Northern Division (formerly ERM-North Central)**  
**Workorder# 2308097**

Six PUF/XAD Cartridge-Low Volume samples were received on August 07, 2023. 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.

To meet the quality control objectives outlined in Method TO-13A, a field blank is required for each sampling episode. If field blanks are not provided to the laboratory, any attendant risk to data quality is the responsibility of the data user.

The frequency of matrix spikes are determined by the different monitoring programs. Matrix spikes are not included in the routine calibration specifications for TO-13A.

<i>Requirement</i>	<i>TO-13A</i>	<i>ATL Modifications</i>
Initial Calibration	Calibration range: 0.1-2.5 ug/mL in Hexane	Calibration range: 1.0-500 ug/mL in Methylene chloride
Method Blank	<MDL	<Reporting limit
Surrogate Recoveries	60-120%	50-150% for Field Surrogates Fluoranthene-d10 and Benzo(a)pyrene-d12

**Receiving Notes**

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

**Analytical Notes**

The sample cartridges were pre-spiked with Fluoranthene-d10 and Benzo(a)Pyrene-d12 on 07/25/2023.

**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, LOD, or MDL value. See data page for project specific U-flag definition.

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

Preliminary

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

**Client Sample ID: 20230731-0803-SAM1**

**Lab ID#: 2308097-01A**

No Detections Were Found.

**Client Sample ID: 20230731-0803-SAM2**

**Lab ID#: 2308097-02A**

No Detections Were Found.

**Client Sample ID: 20230731-0803-SAM3**

**Lab ID#: 2308097-03A**

No Detections Were Found.

**Client Sample ID: 20230731-0803-SAM4**

**Lab ID#: 2308097-04A**

No Detections Were Found.

**Client Sample ID: 20230731-0803-SAM5**

**Lab ID#: 2308097-05A**

No Detections Were Found.

**Client Sample ID: 20230731-0803-SAM6**

**Lab ID#: 2308097-06A**

No Detections Were Found.

Client Sample ID: 20230731-0803-SAM1

Lab ID#: 2308097-01A

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

File Name:	12081047	Date of Collection: 8/3/23 7:37:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/11/23 05:53 AM
		Date of Extraction: 8/8/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	95	60-120
Pyrene-d10	98	60-120
Benzo(a)pyrene-d12	94	50-150
Fluoranthene-d10	102	50-150

Client Sample ID: 20230731-0803-SAM2

Lab ID#: 2308097-02A

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

File Name:	12081048	Date of Collection: 8/3/23 8:04:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/11/23 06:23 AM
		Date of Extraction: 8/8/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	98	60-120
Pyrene-d10	96	60-120
Benzo(a)pyrene-d12	93	50-150
Fluoranthene-d10	99	50-150

Client Sample ID: 20230731-0803-SAM3

Lab ID#: 2308097-03A

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

File Name:	12081049	Date of Collection: 8/3/23 8:10:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/11/23 06:53 AM
		Date of Extraction: 8/8/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	90	60-120
Pyrene-d10	89	60-120
Benzo(a)pyrene-d12	91	50-150
Fluoranthene-d10	93	50-150

Client Sample ID: 20230731-0803-SAM4

Lab ID#: 2308097-04A

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

File Name:	12081050	Date of Collection: 8/3/23 8:19:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/11/23 07:23 AM
		Date of Extraction: 8/8/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	92	60-120
Pyrene-d10	87	60-120
Benzo(a)pyrene-d12	82	50-150
Fluoranthene-d10	95	50-150



Client Sample ID: 20230731-0803-SAM5

Lab ID#: 2308097-05A

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

File Name:	12081051	Date of Collection: 8/3/23 8:25:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/11/23 07:53 AM
		Date of Extraction: 8/8/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	92	60-120
Pyrene-d10	97	60-120
Benzo(a)pyrene-d12	94	50-150
Fluoranthene-d10	94	50-150

Client Sample ID: 20230731-0803-SAM6

Lab ID#: 2308097-06A

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

File Name:	12081052	Date of Collection: 8/3/23 8:30:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/11/23 08:23 AM
		Date of Extraction: 8/8/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	91	60-120
Pyrene-d10	101	60-120
Benzo(a)pyrene-d12	111	50-150
Fluoranthene-d10	95	50-150

Client Sample ID: Lab Blank

Lab ID#: 2308097-07A

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

File Name:	12081046	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/11/23 05:23 AM
		Date of Extraction: 8/8/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	Not Detected
Fluorene	1.0	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	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

Surrogates	%Recovery	Method Limits
Fluorene-d10	91	60-120
Pyrene-d10	99	60-120
Benzo(a)pyrene-d12	117	50-150
Fluoranthene-d10	97	50-150

Client Sample ID: CCV

Lab ID#: 2308097-08A

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

File Name:	12081043	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/11/23 03:53 AM
		Date of Extraction: NA

Compound	%Recovery
Naphthalene	110
2-Methylnaphthalene	113
2-Chloronaphthalene	115
Acenaphthylene	110
Acenaphthene	109
Fluorene	112
Phenanthrene	108
Anthracene	108
Fluoranthene	115
Pyrene	101
Chrysene	106
Benzo(a)anthracene	109
Benzo(b)fluoranthene	119
Benzo(k)fluoranthene	107
Benzo(a)pyrene	109
Indeno(1,2,3-c,d)pyrene	117
Dibenz(a,h)anthracene	113
Benzo(g,h,i)perylene	111

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	112	70-130
Pyrene-d10	102	70-130
Benzo(a)pyrene-d12	112	70-130
Fluoranthene-d10	118	70-130

Client Sample ID: CCV

Lab ID#: 2308097-08B

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

File Name:	12081102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/11/23 01:06 PM
		Date of Extraction: NA

Compound	%Recovery
Naphthalene	110
2-Methylnaphthalene	110
2-Chloronaphthalene	115
Acenaphthylene	110
Acenaphthene	108
Fluorene	111
Phenanthrene	108
Anthracene	110
Fluoranthene	113
Pyrene	106
Chrysene	105
Benzo(a)anthracene	108
Benzo(b)fluoranthene	118
Benzo(k)fluoranthene	118
Benzo(a)pyrene	110
Indeno(1,2,3-c,d)pyrene	96
Dibenz(a,h)anthracene	107
Benzo(g,h,i)perylene	105

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	112	70-130
Pyrene-d10	105	70-130
Benzo(a)pyrene-d12	114	70-130
Fluoranthene-d10	113	70-130

Client Sample ID: LCS

Lab ID#: 2308097-09A

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

File Name:	12081103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/11/23 01:37 PM
		Date of Extraction: 8/8/23

Compound	%Recovery	Method Limits
Naphthalene	76	60-120
2-Methylnaphthalene	80	60-120
2-Chloronaphthalene	86	60-120
Acenaphthylene	80	60-120
Acenaphthene	76	60-120
Fluorene	83	60-120
Phenanthrene	82	60-120
Anthracene	87	60-120
Fluoranthene	86	60-120
Pyrene	82	60-120
Chrysene	81	60-120
Benzo(a)anthracene	86	60-120
Benzo(b)fluoranthene	90	60-120
Benzo(k)fluoranthene	85	60-120
Benzo(a)pyrene	85	60-120
Indeno(1,2,3-c,d)pyrene	80	60-120
Dibenz(a,h)anthracene	83	60-120
Benzo(g,h,i)perylene	82	60-120

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	83	60-120
Pyrene-d10	82	60-120
Benzo(a)pyrene-d12	104	50-150
Fluoranthene-d10	90	50-150

Client Sample ID: LCSD

Lab ID#: 2308097-09AA

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

File Name:	12081045	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/11/23 04:53 AM
		Date of Extraction: 8/8/23

Compound	%Recovery	Method Limits
Naphthalene	77	60-120
2-Methylnaphthalene	85	60-120
2-Chloronaphthalene	91	60-120
Acenaphthylene	85	60-120
Acenaphthene	84	60-120
Fluorene	92	60-120
Phenanthrene	91	60-120
Anthracene	96	60-120
Fluoranthene	98	60-120
Pyrene	93	60-120
Chrysene	92	60-120
Benzo(a)anthracene	98	60-120
Benzo(b)fluoranthene	105	60-120
Benzo(k)fluoranthene	97	60-120
Benzo(a)pyrene	99	60-120
Indeno(1,2,3-c,d)pyrene	90	60-120
Dibenz(a,h)anthracene	95	60-120
Benzo(g,h,i)perylene	95	60-120

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	91	60-120
Pyrene-d10	94	60-120
Benzo(a)pyrene-d12	120	50-150
Fluoranthene-d10	101	50-150