

8/30/2023

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: Taylorville MGP

Project #: 0693965

Workorder #: 2308555

Dear Mr. Bryan Engelsen

The following report includes the data for the above referenced project for sample(s) received on 8/25/2023 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 #: 2308555

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	BILL TO:	Accounts Payable ERM Northern Division (formerly ERM-North Central) One Continental Towers 1701 Golf Road, Suite 1-700
PHONE:		P.O. #	012633-1257
FAX:	847-258-8901	PROJECT #	0693965 Taylorville MGP
DATE RECEIVED:	08/25/2023	CONTACT:	Joel Tillman
DATE COMPLETED:	08/30/2023		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	20230821-0824-SAM1	Modified TO-13A
02A	20230821-0824-SAM2	Modified TO-13A
03A	20230821-0824-SAM3	Modified TO-13A
04A	20230821-0824-SAM4	Modified TO-13A
05A	20230821-0824-SAM5	Modified TO-13A
06A	20230821-0824-SAM6	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: 08/30/23

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.

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LABORATORY NARRATIVE
Modified TO-13A
ERM Northern Division (formerly ERM-North Central)
Workorder# 2308555

Six PUF/XAD Cartridge-Low Volume samples were received on August 25, 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

Sample collection date was incomplete on the Chain of Custody for samples 20230821-0824-SAM1, 20230821-0824-SAM2, 20230821-0824-SAM3, 20230821-0824-SAM4, 20230821-0824-SAM5 and 20230821-0824-SAM6. The year of collection was assumed to be 2023.

Analytical Notes

The sample cartridges were pre-spiked with Fluoranthene-d10 and Benzo(a)Pyrene-d12 on 08/15/2023.

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: 20230821-0824-SAM1

Lab ID#: 2308555-01A

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	26
2-Methylnaphthalene	1.0	9.0
Acenaphthene	1.0	1.5
Fluorene	1.0	1.1
Phenanthrene	1.0	1.2

Client Sample ID: 20230821-0824-SAM2

Lab ID#: 2308555-02A

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	6.6
2-Methylnaphthalene	1.0	2.2

Client Sample ID: 20230821-0824-SAM3

Lab ID#: 2308555-03A

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	1.9

Client Sample ID: 20230821-0824-SAM4

Lab ID#: 2308555-04A

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	12
2-Methylnaphthalene	1.0	3.4

Client Sample ID: 20230821-0824-SAM5

Lab ID#: 2308555-05A

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	8.6
2-Methylnaphthalene	1.0	2.4

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

Client Sample ID: 20230821-0824-SAM6

Lab ID#: 2308555-06A

No Detections Were Found.

Preliminary

Client Sample ID: 20230821-0824-SAM1

Lab ID#: 2308555-01A

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

File Name:	12082810	Date of Collection: 8/24/23 10:13:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/28/23 01:15 PM
		Date of Extraction: 8/28/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	26
2-Methylnaphthalene	1.0	9.0
2-Chloronaphthalene	1.0	Not Detected
Acenaphthylene	1.0	Not Detected
Acenaphthene	1.0	1.5
Fluorene	1.0	1.1
Phenanthrene	1.0	1.2
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	83	60-120
Pyrene-d10	82	60-120
Benzo(a)pyrene-d12	63	50-150
Fluoranthene-d10	65	50-150

Client Sample ID: 20230821-0824-SAM2

Lab ID#: 2308555-02A

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

File Name:	12082811	Date of Collection: 8/24/23 10:28:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/28/23 01:45 PM
		Date of Extraction: 8/28/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	6.6
2-Methylnaphthalene	1.0	2.2
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	82	60-120
Pyrene-d10	79	60-120
Benzo(a)pyrene-d12	64	50-150
Fluoranthene-d10	69	50-150

Client Sample ID: 20230821-0824-SAM3

Lab ID#: 2308555-03A

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

File Name:	12082812	Date of Collection: 8/24/23 10:36:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/28/23 02:17 PM
		Date of Extraction: 8/28/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	1.9
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	76	60-120
Pyrene-d10	85	60-120
Benzo(a)pyrene-d12	61	50-150
Fluoranthene-d10	60	50-150

Client Sample ID: 20230821-0824-SAM4

Lab ID#: 2308555-04A

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

File Name:	12082813	Date of Collection: 8/24/23 9:59:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/28/23 02:47 PM
		Date of Extraction: 8/28/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	12
2-Methylnaphthalene	1.0	3.4
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	83	60-120
Pyrene-d10	86	60-120
Benzo(a)pyrene-d12	61	50-150
Fluoranthene-d10	68	50-150

Client Sample ID: 20230821-0824-SAM5

Lab ID#: 2308555-05A

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

File Name:	12082814	Date of Collection: 8/24/23 9:52:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/28/23 03:17 PM
		Date of Extraction: 8/28/23

Compound	Rpt. Limit (ug)	Amount (ug)
Naphthalene	1.0	8.6
2-Methylnaphthalene	1.0	2.4
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	76	60-120
Pyrene-d10	82	60-120
Benzo(a)pyrene-d12	67	50-150
Fluoranthene-d10	66	50-150

Client Sample ID: 20230821-0824-SAM6

Lab ID#: 2308555-06A

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

File Name:	12082815	Date of Collection: 8/24/23 10:10:00 AM
Dil. Factor:	1.00	Date of Analysis: 8/28/23 03:47 PM
		Date of Extraction: 8/28/23

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	80	60-120
Pyrene-d10	76	60-120
Benzo(a)pyrene-d12	80	50-150
Fluoranthene-d10	74	50-150

Client Sample ID: Lab Blank

Lab ID#: 2308555-07A

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

File Name:	12082809	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/28/23 12:45 PM
		Date of Extraction: 8/28/23

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	72	60-120
Pyrene-d10	76	60-120
Benzo(a)pyrene-d12	78	50-150
Fluoranthene-d10	66	50-150

Client Sample ID: CCV

Lab ID#: 2308555-08A

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

File Name:	12082803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/28/23 09:30 AM
		Date of Extraction: NA

Compound	%Recovery
Naphthalene	90
2-Methylnaphthalene	92
2-Chloronaphthalene	96
Acenaphthylene	89
Acenaphthene	86
Fluorene	90
Phenanthrene	86
Anthracene	72
Fluoranthene	90
Pyrene	93
Chrysene	87
Benzo(a)anthracene	85
Benzo(b)fluoranthene	95
Benzo(k)fluoranthene	92
Benzo(a)pyrene	89
Indeno(1,2,3-c,d)pyrene	78
Dibenz(a,h)anthracene	84
Benzo(g,h,i)perylene	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	91	70-130
Pyrene-d10	92	70-130
Benzo(a)pyrene-d12	102	70-130
Fluoranthene-d10	91	70-130

Client Sample ID: LCS

Lab ID#: 2308555-09A

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

File Name:	12082807	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/28/23 11:45 AM
		Date of Extraction: 8/28/23

Compound	%Recovery	Method Limits
Naphthalene	73	60-120
2-Methylnaphthalene	79	60-120
2-Chloronaphthalene	83	60-120
Acenaphthylene	72	60-120
Acenaphthene	70	60-120
Fluorene	81	60-120
Phenanthrene	74	60-120
Anthracene	75	60-120
Fluoranthene	84	60-120
Pyrene	75	60-120
Chrysene	77	60-120
Benzo(a)anthracene	76	60-120
Benzo(b)fluoranthene	81	60-120
Benzo(k)fluoranthene	79	60-120
Benzo(a)pyrene	77	60-120
Indeno(1,2,3-c,d)pyrene	67	60-120
Dibenz(a,h)anthracene	72	60-120
Benzo(g,h,i)perylene	76	60-120

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	83	60-120
Pyrene-d10	75	60-120
Benzo(a)pyrene-d12	90	50-150
Fluoranthene-d10	82	50-150

Client Sample ID: LCSD

Lab ID#: 2308555-09AA

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

File Name:	12082808	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/28/23 12:15 PM
		Date of Extraction: 8/28/23

Compound	%Recovery	Method Limits
Naphthalene	76	60-120
2-Methylnaphthalene	80	60-120
2-Chloronaphthalene	83	60-120
Acenaphthylene	75	60-120
Acenaphthene	73	60-120
Fluorene	80	60-120
Phenanthrene	77	60-120
Anthracene	77	60-120
Fluoranthene	80	60-120
Pyrene	87	60-120
Chrysene	80	60-120
Benzo(a)anthracene	81	60-120
Benzo(b)fluoranthene	89	60-120
Benzo(k)fluoranthene	83	60-120
Benzo(a)pyrene	83	60-120
Indeno(1,2,3-c,d)pyrene	69	60-120
Dibenz(a,h)anthracene	80	60-120
Benzo(g,h,i)perylene	82	60-120

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	81	60-120
Pyrene-d10	86	60-120
Benzo(a)pyrene-d12	93	50-150
Fluoranthene-d10	78	50-150