

12/16/2020

Mr. Bipul Saraf

Yorke Engineering, LLC

31726 Rancho Viejo Road

Suite 218

San Juan Capistrano CA 92675

Project Name: Odor Sampling

Project #: 357-007-01

Workorder #: 2012173

Dear Mr. Bipul Saraf

The following report includes the data for the above referenced project for sample(s) received on 12/7/2020 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: Jade White at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jade White

Project Manager

**WORK ORDER #: 2012173**

## Work Order Summary

**CLIENT:** Mr. Bipul Saraf  
Yorke Engineering, LLC  
31726 Rancho Viejo Road  
Suite 218  
San Juan Capistrano, CA 92675

**PHONE:** 949-248-8490

**FAX:**

**DATE RECEIVED:** 12/07/2020

**DATE COMPLETED:** 12/16/2020

**BILL TO:** Mr. Bipul Saraf  
Yorke Engineering, LLC  
31726 Rancho Viejo Road  
Suite 218  
San Juan Capistrano, CA 92675

**P.O. #** 357-007-01

**PROJECT #** 357-007-01 Odor Sampling

**CONTACT:** Jade White

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Inside AAA	Modified TO-13A
02A	Lab Blank	Modified TO-13A
03A	CCV	Modified TO-13A
04A	LCS	Modified TO-13A
04AA	LCSD	Modified TO-13A

CERTIFIED BY:



Technical Director

DATE: 12/16/20

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935

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

Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.

Eurofins Air Toxics, LLC 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**  
**Yorke Engineering, LLC**  
**Workorder# 2012173**

One PUF/XAD Cartridge sample was received on December 07, 2020. 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 not included with the shipment. Temperature was measured on a representative sample 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 11/12/2020.

Sampling volumes were supplied by the client. A sample volume of 396,000 L was used for the Lab Blank.

**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

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

**Client Sample ID: Inside AAA**

**Lab ID#: 2012173-01A**

<b>Compound</b>	<b>Rpt. Limit (ug)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug)</b>	<b>Amount (ug/m3)</b>
Naphthalene	1.0	0.0025	6.1	0.015
2-Methylnaphthalene	1.0	0.0025	4.4	0.011

Client Sample ID: Inside AAA

Lab ID#: 2012173-01A

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

File Name:	12120807	Date of Collection:	11/30/20 12:46:00 P
Dil. Factor:	1.00	Date of Analysis:	12/8/20 02:39 PM
		Date of Extraction:	12/8/20

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Naphthalene	1.0	0.0025	6.1	0.015
2-Methylnaphthalene	1.0	0.0025	4.4	0.011
2-Chloronaphthalene	1.0	0.0025	Not Detected	Not Detected
Acenaphthylene	1.0	0.0025	Not Detected	Not Detected
Acenaphthene	1.0	0.0025	Not Detected	Not Detected
Fluorene	1.0	0.0025	Not Detected	Not Detected
Phenanthrene	1.0	0.0025	Not Detected	Not Detected
Anthracene	1.0	0.0025	Not Detected	Not Detected
Fluoranthene	1.0	0.0025	Not Detected	Not Detected
Pyrene	1.0	0.0025	Not Detected	Not Detected
Chrysene	1.0	0.0025	Not Detected	Not Detected
Benzo(a)anthracene	1.0	0.0025	Not Detected	Not Detected
Benzo(b)fluoranthene	1.0	0.0025	Not Detected	Not Detected
Benzo(k)fluoranthene	1.0	0.0025	Not Detected	Not Detected
Benzo(a)pyrene	1.0	0.0025	Not Detected	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	0.0025	Not Detected	Not Detected
Dibenz(a,h)anthracene	1.0	0.0025	Not Detected	Not Detected
Benzo(g,h,i)perylene	1.0	0.0025	Not Detected	Not Detected

Air Sample Volume(L): 396000

Container Type: PUF/XAD Cartridge

Surrogates	%Recovery	Method Limits
Fluorene-d10	77	60-120
Pyrene-d10	112	60-120
Benzo(a)pyrene-d12	77	50-150
Fluoranthene-d10	70	50-150

Client Sample ID: Lab Blank

Lab ID#: 2012173-02A

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

File Name:	12120806	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/8/20 02:09 PM
		Date of Extraction:	12/8/20

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Naphthalene	1.0	0.0025	Not Detected	Not Detected
2-Methylnaphthalene	1.0	0.0025	Not Detected	Not Detected
2-Chloronaphthalene	1.0	0.0025	Not Detected	Not Detected
Acenaphthylene	1.0	0.0025	Not Detected	Not Detected
Acenaphthene	1.0	0.0025	Not Detected	Not Detected
Fluorene	1.0	0.0025	Not Detected	Not Detected
Phenanthrene	1.0	0.0025	Not Detected	Not Detected
Anthracene	1.0	0.0025	Not Detected	Not Detected
Fluoranthene	1.0	0.0025	Not Detected	Not Detected
Pyrene	1.0	0.0025	Not Detected	Not Detected
Chrysene	1.0	0.0025	Not Detected	Not Detected
Benzo(a)anthracene	1.0	0.0025	Not Detected	Not Detected
Benzo(b)fluoranthene	1.0	0.0025	Not Detected	Not Detected
Benzo(k)fluoranthene	1.0	0.0025	Not Detected	Not Detected
Benzo(a)pyrene	1.0	0.0025	Not Detected	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	0.0025	Not Detected	Not Detected
Dibenz(a,h)anthracene	1.0	0.0025	Not Detected	Not Detected
Benzo(g,h,i)perylene	1.0	0.0025	Not Detected	Not Detected

Air Sample Volume(L): 396000  
 Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	77	60-120
Pyrene-d10	97	60-120
Benzo(a)pyrene-d12	84	50-150
Fluoranthene-d10	65	50-150

Client Sample ID: CCV

Lab ID#: 2012173-03A

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

File Name:	12120803	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/8/20 12:39 PM
		Date of Extraction:	NA

Compound	%Recovery
Naphthalene	90
2-Methylnaphthalene	112
2-Chloronaphthalene	99
Acenaphthylene	97
Acenaphthene	90
Fluorene	91
Phenanthrene	94
Anthracene	104
Fluoranthene	88
Pyrene	123
Chrysene	96
Benzo(a)anthracene	91
Benzo(b)fluoranthene	102
Benzo(k)fluoranthene	100
Benzo(a)pyrene	100
Indeno(1,2,3-c,d)pyrene	86
Dibenz(a,h)anthracene	100
Benzo(g,h,i)perylene	98

Air Sample Volume(L): 1.00  
 Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	88	70-130
Pyrene-d10	118	70-130
Benzo(a)pyrene-d12	102	70-130
Fluoranthene-d10	85	70-130



Client Sample ID: LCS

Lab ID#: 2012173-04A

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

File Name:	12120804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/8/20 01:09 PM
		Date of Extraction: 12/8/20

Compound	%Recovery	Method Limits
Naphthalene	67	60-120
2-Methylnaphthalene	91	60-120
2-Chloronaphthalene	76	60-120
Acenaphthylene	74	60-120
Acenaphthene	69	60-120
Fluorene	73	60-120
Phenanthrene	80	60-120
Anthracene	84	60-120
Fluoranthene	75	60-120
Pyrene	95	60-120
Chrysene	79	60-120
Benzo(a)anthracene	77	60-120
Benzo(b)fluoranthene	96	60-120
Benzo(k)fluoranthene	74	60-120
Benzo(a)pyrene	81	60-120
Indeno(1,2,3-c,d)pyrene	74	60-120
Dibenz(a,h)anthracene	82	60-120
Benzo(g,h,i)perylene	81	60-120

Air Sample Volume(L): 1.00  
 Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	73	60-120
Pyrene-d10	97	60-120
Benzo(a)pyrene-d12	89	50-150
Fluoranthene-d10	75	50-150

Client Sample ID: LCSD

Lab ID#: 2012173-04AA

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

File Name:	12120805	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/8/20 01:39 PM
		Date of Extraction: 12/8/20

Compound	%Recovery	Method Limits
Naphthalene	64	60-120
2-Methylnaphthalene	84	60-120
2-Chloronaphthalene	70	60-120
Acenaphthylene	69	60-120
Acenaphthene	66	60-120
Fluorene	66	60-120
Phenanthrene	72	60-120
Anthracene	77	60-120
Fluoranthene	67	60-120
Pyrene	92	60-120
Chrysene	74	60-120
Benzo(a)anthracene	73	60-120
Benzo(b)fluoranthene	93	60-120
Benzo(k)fluoranthene	71	60-120
Benzo(a)pyrene	75	60-120
Indeno(1,2,3-c,d)pyrene	70	60-120
Dibenz(a,h)anthracene	81	60-120
Benzo(g,h,i)perylene	81	60-120

Air Sample Volume(L): 1.00  
 Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorene-d10	66	60-120
Pyrene-d10	90	60-120
Benzo(a)pyrene-d12	84	50-150
Fluoranthene-d10	65	50-150