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Vapor Intrusion Sampling Report for 5768 W Morris St

<u>IDEM VRP No. 6150101</u>

Fabric Care Center 5760 W Morris St Indianapolis, IN 46241

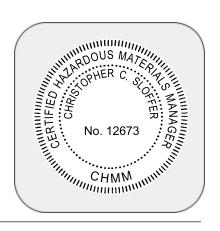
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June 26, 2024





Date: 6/26/24

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1 Introduction

1.1 Purpose

The Environmental Liability and Asset Management Group ("The ELAM Group") submitted a Remediation Work Plan ("RWP") to the Indiana Department of Environmental Management ("IDEM") for the Fabric Care Center facility ("Facility") (ELAM 2023a). Based on its review of the RWP, IDEM made a specific request for a baseline vapor intrusion ("VI") sampling event within the Facility prior to implementation of the planned active remedy (ELAM 2023b). IDEM further requested that the ensuing documentation of the baseline VI sampling event be submitted to IDEM as an RWP Addendum that would include revisions to the RWP, if necessary, based on the data.

Accordingly, The ELAM Group conducted a baseline VI sampling event and reported the results in an RWP Addendum intended to be incorporated with the RWP for IDEM's Public Notice period (ELAM 2023c). Based on IDEM's review of the RWP Addendum (IDEM 2023), IDEM recommended that additional exterior soil gas ("SGe") samples be collected from historical sample locations SG-01 through SG-05 (located between the Facility and the western adjoining property located at 5768 W Morris St). The purpose of the recommended sample collection is to determine the potential for vapor intrusion ("VI") at the neighboring Halal Market (5768 W Morris St) where no sub-slab soil gas ("SGss") sampling has been conducted to date. Alternatively, IDEM indicated that paired VI sampling inside the Halal Market could be conducted during the same time frame.

In response, The ELAM Group submitted an Additional Investigation Scope of Work to IDEM (ELAM 2024), indicating that the following additional investigation activities would be conducted for the property located at 5768 W Morris St:

"Secure access" and "VI Sample Collection,¹ including the preparation of a field work plan, installation of 4 SGss sample ports, pre-VI sampling chemical inventory and removal (if possible) at least 48 hours before sampling, collection of 4 SGss, 4 indoor air ("IA"), 1 field duplicate ("FD") and 1 outdoor air ("OA") samples into individually-certified 6-Liter Summa canisters through an 8-hour time-weighted average ("TWA") air

¹ Alternatively, in the event that necessary access was not obtained, The ELAM Group planned to collect another round of exterior soil gas samples from sample ports SG-01 through SG-05.



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intake valve, and laboratory analysis of the air samples for volatile organic compounds ("VOCs") via Method TO-15"

This VI Sampling Report for 5768 W Morris St documents these activities, including field procedures, results, analysis and recommendations associated with the winter worst-case sampling event that occurred on 3/28/24.

1.2 Site Description

The Facility is located at 5760 W Morris St on the west side of Indianapolis in Marion County, Indiana ("Site"). Figure 1 shows the location of the Property, and Figure 2a shows a generalized Site Plan with all of the investigation locations referenced in the RWP. The Halal Market is located at 5768 W Morris St, which is the adjoining property to the west of the Facility.

The Halal Market building, where the VI sampling occurred, currently consists of a one-story commercial store located in a commercial and residential setting next to a two-story coin laundry and dry cleaning operation that historically used tetrachloroethylene ("PCE") in dry cleaning machines ("DCMs"). The following areas are present within the Halal Market building: sales room and service counter, meat processing area, storage area and offices. The front of the building has two entrance doors, which suggests that the building may be split into two suites. However, this is not the case and all of the areas are accessible via the western entrance door that allows customers to enter the sales room and service counter area of the Halal Market building.

1.3 Release-Related Chemicals

As presented in the RWP (ELAM 2023a), the Release-Related Chemicals ("RRCs") for the Facility are chlorinated volatile organic compounds ("cVOCs") related to the dry cleaning solvent tetrachloroethylene ("PCE"). Specifically, cVOCs include PCE, trichloroethene ("TCE"), cis-1,2-dichloroethene ("cDCE"), trans-1,2-dichloroethene ("tDCE") and vinyl chloride ("VC").



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1.4 Rationale

Based on IDEM's review of the RWP Addendum, IDEM recommended that additional sample collection activities be conducted for the purpose of determining the potential for VI at the neighboring Halal Market (5768 W Morris St) where no SGss sampling had been conducted to date. Access was secured on 3/25/24, sample ports were installed on 3/26/24 and VI samples were collected on 3/28/24. In addition to the planned paired VI samples recommended by IDEM, an SGe sample port (SG-06) was installed between the Facility and the Halal Market building and a sample collected from this SGe sample port based upon a request from the property owner.² The sample locations are depicted on the Site Plan included as Figure 2.

² Please note that historical SGe sample locations SG-01 through SG-05 are no longer present. Based on documentation obtained from the previous environmental consultant, each of the five temporary soil gas sampling points installed on the east side of the Halal Market building were installed to a depth of approximately 5 feet below ground surface using a 0.5-inch outer diameter hand auger and constructed of the following materials: a stainless steel vapor implant, teflon-lined tubing, sand and hydrated bentonite.

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2 Field Procedures

2.1 General

The planned field activities were executed on 3/26/24 and 3/28/24. Preparation activities occurred on 3/26/24 and consisted of (1) the installation of SGss sample ports, (2) the installation of an SGe sample port and (3) a review of the chemicals used within the Halal Market building. Sample collection activities occurred on 3/28/24 and consisted of (4) the collection of 8-hour TWA, paired SGss/IA samples and (5) the collection of a 5-minute SGe sample. A summary of the air samples collected is provided below. The sample collection field documentation is provided in Appendix A.

Sample Season	Date of Sample Collection	Location	Sub-slab Soil Gas ("SGss"), ("SG") Sample Locations	Indoor Air ("IA") Sample Locations	Exterior Soil Gas ("SGe") Sample Location
Winter Heating 2024	3/28/24	1st Floor	SGss-1	IA-1	SG-06
2024			SGss-2	IA-1	
			SGss-3	IA-3 plus FD1	
			SGss-4	IA-4	

The field procedures for SGe, SGss and IA sample collection are specified in the *Quality Assurance Project Plan* ("QAPP") included with the RWP (ELAM 2023a). However, the SGss and SGe port installation and purge procedures are not specified therein and are therefore specified in the following subsection.

2.2 SGss Installation and Purge Procedures

The port installation and port integrity testing associated with permanent SGss sample ports SGss-1, SGss-2, SGss-3 and SGss-4, as well as SGe sample port SG-06, are outlined below.





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2.2.1 SGss Port Installation Procedure

Threaded Vapor Pin[®] sub-slab sample ports were installed by an ELAM scientist below surface grade as follows:

- 1. Construct a recessed portion of the port using a drill to partially penetrate the concrete approximately 1 inch using a 1.5-inch diameter drill bit
- 2. Within the recessed hole, drill a smaller 0.625-inch diameter hole
- 3. Insert a Vapor Pin® sample port through the 0.625-inch hole as follows:
 - a. Don a clean, unused silicone sleeve onto a clean, unused stainless steel sample port
 - b. Drive the assembled sleeve and port through the concrete with Vapor Pin[®] tooling
 - c. Inspect the sleeve and port for proper sealing
 - d. Affix a cap to the Vapor Pin barb to seal the sample port when not in use
- 4. Screw a threaded stainless steel flush-mount cover into the threaded portion of the Vapor Pin® to protect the recessed port when not in use

2.2.2 SGss Port Integrity Testing and Air Purging Procedure

Following installation and also prior to sampling, the integrity of each sample port seal was inspected by an ELAM scientist with a water dam test. During the water dam test, soil gas was purged through the tubing. The procedures for the water dam test and purging are as follows:

- 1. Remove the stainless steel cover
- Pour distilled water into the recessed area of the port
- 3. Monitor the water level while purging one liter ("1L") of soil gas from the sample port as follows:
 - a. Using a hand-operated transfer pump, disposable polyethylene ("PE") tubing will be connected between the barbed fitting of the sample port and the barbed fitting of the transfer pump intake and another piece of PE tubing will be connected between the barbed fitting of the effluent end of the transfer pump and the barbed fitting of a 1L Tedlar bag
 - b. After purging 1L of soil gas into the Tedlar bag, the valve on the Tedlar bag will be sealed







- c. The air within the Tedlar bag will then be expelled outdoors, downwind of the sampling area
- 4. If the water level does not change, the seal is intact and sampling may proceed
- 5. If the water level lowers, the area around the port will be sealed with quick-drying cement and/or the port will be removed, the old silicone sleeve will be discarded and replaced with an unused silicone sleeve, the port will be re-installed per Section 2.2.1 and then re-tested until a seal is found to be intact³
- 6. After the water dam test is complete, the water will be evacuated from the recessed area

2.2.3 Exterior Soil Gas Sample Port Installation

The SGe port was installed by advancing a hand auger to approximately 5 feet below ground surface ("bgs") and constructing the shallow SGe sample port within the open borehole. The soil gas implant tip was attached to TeflonTM tubing that extended to the surface, was surrounded by clean silica filter sand, and had a hydrated bentonite seal installed above the filter pack sand. The SGe sample port was finished at the surface with masterflex tubing and 0.5-inch diameter PVC collar to seal the top of the sample tubing. A 6-inch diameter manway set in concrete was used to protect the sample port.

Following installation, the SGe sample port was developed by purging approximately 1L of soil gas from the SGe sample port using a manual hand pump and Tedlar bag. In addition, the SGe sample port was surveyed for elevation to the nearest 0.01 feet relative to the existing monitoring well network. An SGe sample port construction diagram for SG-06 is included in Appendix B.

2.3 Field Procedure Deviations

No deviations from the planned activities occurred during sample collection activities.

³ If a seal could not have been established, an entirely new SGss port would have been installed within 1 foot of the original location.



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2.4 Laboratory Analysis of Samples

Following the completion of field activities, the air samples and associated quality assurance/quality control ("QA/QC") samples were submitted to Envision Laboratories, Inc. located in Indianapolis, Indiana, for analysis of volatile organic compounds ("VOCs") using United States Environmental Protection Agency ("USEPA") Method TO-15 (USEPA 2019). Because these samples are related to investigation, a Level IV laboratory data package was requested from the laboratory.





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3 Results

3.1 Air Analytical Results

The laboratory analytical report, with associated Level IV data package, is included in Appendix C. The analytical results for SGss and IA samples are summarized in Table 1 and the analytical results for the SGe sample are summarized in Table 2. The analytical results are depicted on Figure 3. The following sections discuss the QA/QC of the analytical data obtained during the VI sample collection event.

3.2 QA/QC Results

The QA/QC data associated with the air samples were evaluated to assess the quality of the VI data in relation to its intended use of documenting the presence of dry cleaning RRCs in air samples collected during the VI sampling event.

3.2.1 Method Blank

VOCs were not detected in the method blank associated with the sampling event. Therefore, no cross-contamination during laboratory analysis is suspected.

3.2.2 Field Duplicate

A FD sample, identified as FD-1, was collected at the same time as sample IA-3. FD-1 and IA-3 contained no detections above the respective laboratory reporting limits ("RLs"). Consequently, a relative percent difference ("RPD") could not be calculated, as summarized in the table below. The data are presented in micrograms per cubic meter (" μ g/m³").



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Worst-case Sample Season	Constituent	MDL (μg/m³)	Sample IA6 Concentration (µg/m³)	Duplicate FD1 Concentration (µg/m³)	Duplicate Pair Results >RL and >5x MDL? (Y/N)	RPD (%)
Winter 2024	cVOCs	varies	<rl< td=""><td><rl< td=""><td>N</td><td>Unable to calculate</td></rl<></td></rl<>	<rl< td=""><td>N</td><td>Unable to calculate</td></rl<>	N	Unable to calculate

3.2.3 Potential Indoor Air Contaminants

The pre-sampling inspection did not identify any chemicals that contained potential IA contaminants that could impact the IA analytical results and should therefore be removed at least 48 hours prior to sampling. Furthermore, VOCs were not detected in the IA samples. Based on the absence of any RRCs in the IA samples, no cross-contamination from an IA source during sample collection is suspected.

3.2.4 Potential Outdoor Air Contaminants

VOCs were not detected in the outdoor air ("OA") sample associated with the sampling event. Based on the absence of any RRCs in the OA sample, no cross-contamination from an OA source during sample collection is suspected.





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4 Analysis

The laboratory analytical report, with associated Level IV data package, is included in Appendix C. The analytical results for SGss and IA samples are summarized in Table 1 and the analytical results for the SGe sample are summarized in Table 2. The analytical results are depicted on Figure 3. The following sections discuss the analysis of the analytical data obtained during the VI sample collection event relative to the remedial action objectives ("RAOs") for areas where potential exposure is not prevented by an institutional control.

4.1 IA Analysis

The analytical results for the IA samples collected in the Halal Market were compared to the respective Residential Indoor Air Published Levels ("RIA PLs") and Residential Indoor Air Action Levels ("RIA ALs")⁴ in IDEM's Risk-based Closure Guide ("R2") (IDEM 2022, 2024). Review of the laboratory analytical data indicates that no VOC was detected at concentrations above the laboratory RLs in the VI samples collected from the Halal Market, and the RLs are lower than the RIA PLs.

4.2 SGss Analysis

The analytical results for the SGss samples collected in the Halal Market were compared to the respective Residential Sub-slab Soil Gas Published Levels ("RSGss PLs") in IDEM's R2 (IDEM 2022, 2024). Review of the laboratory analytical data indicates that PCE was detected at concentrations above the laboratory RLs in the SGss samples collected from the Halal Market.

The detected concentrations of PCE in samples SGss-1 (29.2 μ g/m³) and SGss-2 (14.0 μ g/m³) are each below the RSGss PL of 1,000 μ g/m³. The detected concentration of TCE in sample SGss-1 (35.2 μ g/m³) is below the RSGss PL of 70 μ g/m³.

⁴ IDEM defines the RIA AL for a chemical as ten times that chemical's RIA PL. Exceedances of the RIA AL warrant prompt action to reduce exposures.



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4.3 SGe Analysis

The analytical results for the SGe sample collected from the area between the Facility and the Halal Market were compared to the respective Residential Shallow Exterior Soil Gas Published Levels ("RSGe PLs") in IDEM's R2 (IDEM 2022, 2024). Review of the laboratory analytical data indicates that PCE was detected at a concentration above the laboratory RL in the SGe sample collected from the area between the Facility and the Halal Market.

The detected concentration of PCE in sample SG-06 (1,180 μ g/m³) is approximately three times the Shallow RSGe PL of 400 μ g/m³.

4.4 Comparison to R2

According to IDEM's R2, the VI data collected from the Halal Market could be interpreted to fall into either Scenario 1 or Scenario 3 (IDEM 2022, 2024). In this case, the Scenario 1 interpretation is based on the observation that both the SGss and IA concentrations are below their applicable published levels. According to IDEM, if both rounds of paired IA/SGss sample data are below IDEM applicable published levels, then neither a vapor remedy nor additional sampling is necessary. Alternately, the Scenario 3 interpretation is based on the observation that the SGe concentration is greater than two times the Shallow RSGe PL and the IA concentrations are below their applicable published levels. This Scenario recommends remedy or continued monitoring for VI until a remedy proves either necessary or unnecessary. Regardless of the Scenario 1 or Scenario 3 interpretation, a second sampling event must be completed during summer worst-case conditions in order to conduct a full vapor intrusion assessment ("VIA") of the Halal Market building.





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5 Recommendation

This VI Sampling Report for 5768 W Morris St was prepared to document VI sample collection activities at the adjoining Halal Market property. The results from the paired SGss/IA sampling event indicate that the VI data for the Halal Market have met IDEM's Scenario 1 specified in R2. According to IDEM, if both rounds of paired IA/SGss sample data are below IDEM applicable published levels, then neither a vapor remedy nor additional sampling is necessary. However, the results from the SGe sample indicate that IDEM's Scenario 3 specified in R2 might be applicable. This Scenario recommends remedy or continued monitoring for VI until a remedy proves either necessary or unnecessary. Regardless of the Scenario 1 or Scenario 3 interpretation, a second sampling event must be completed during summer worst-case conditions in order to conduct a full VIA of the Halal Market building.



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6 References

- ELAM, 2023a, Remediation Work Plan Revision 3, Fabric Care Center, VRP #6150101, 7/19/23, IDEM VFC Document No. 83506495 (URL last verified 6/18/24).
- ELAM, 2023b, *VI Investigation Fabric Care Center*, Personal Communication, *FROM:* Claire Fredin (IDEM), *TO:* James Hogan (IDEM), 8/22/23.
- ELAM, 2023c, *RWP Addendum*, Fabric Care Center, VRP #6150101, 10/13/23, IDEM VFC Document No. 83544583 (URL last verified 6/18/24).
- ELAM, 2024, Additional Investigation Scope of Work, Fabric Care Center, VRP #6150101, 1/26/24, IDEM VFC Document No. 83589524 (URL last verified 6/18/24).
- IDEM, 2022, *Risk-based Closure Guide*, 7/8/22, IDEM: https://www.in.gov/idem/files/nrpd_waste-0046-r2_attch.pdf (URL last verified 6/18/24).
- IDEM, 2023, Remediation Work Plan Addendum Review, Fabric Care Center, VRP #6150101, 11/30/23, IDEM VFC Document No. <u>83564494</u> (URL last verified 6/18/24).
- IDEM, 2024, 2024 Published Level Table 1, 3/1/24, IDEM: https://www.in.gov/idem/cleanups/files/risk-based_closure_table_2024_01.pdf (URL last verified 6/18/24).
- USEPA, 2019, Method TO-15A: Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially Prepared Canisters and Analyzed by Gas Chromatography-Mass Spectrometry (GC-MS), United States Environmental Protection Agency, September 2019.





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Table

 Table 1. Vapor Intrusion Analytical Results (cVOCs)

Fabric Care Center

5760 West Morris Street, Indianapolis, IN 46241

IDEM VRP No: 6150101

Address	Season	Sample Location	Sample ID	Туре	Date	PCE	TCE	cDCE	tDCE	VC	Chloroform
			Chem	ical Abstracts Service Reg	gistry Number (CASRN)	127-18-4	79-01-6	156-59-2	156-60-5	75-01-4	67-66-3
			Re	sidential Indoor Air Action	Level (RIA AL) (ug/m3)	400	20	400	400	20	10
			Reside	ential Indoor Air Published	Level (RIA PL) (ug/m3)	40	2	40	40	2	1
			Residential Subsl	ab Soil Gas Published Lev	vel (RSGss PL) (ug/m3)	1,000	70	1,000	1,000	60	40
			IA1:A032824	Indoor Air	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
			SS1:A032824	Subslab Soil Gas	03/28/24	29.2	<1.07	<19.8	<39.6	<1.28	<0.83
		1st Floor	IA2:A032824	Indoor Air	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
			SS2:A032824	Subslab Soil Gas	03/28/24	14.0	<1.07	<19.8	<39.6	<1.28	<0.83
Halal Market		151 F1001	IA3:A032824	Indoor Air	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
5768 W Morris St	Winter Heating Season 2024		FD1:A032824	Indoor Air	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
(Commercial)			SS3:A032824	Subslab Soil Gas	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
			IA4:A032824	Indoor Air	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
			SS4:A032824	Subslab Soil Gas	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
		Outside	OA1:A032824	Outdoor Air	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83

Notes:

- 1. Air analytical results are presented in micrograms per cubic meter (ug/m3).
- 2. Gray shading indicates that air sample collected from below grade sample point.
- 3. A bold font style and yellow shading indicates that the concentration exceeds the applicable 2024 IDEM R2 Residential Indoor Air Published Level or Residential Subslab Soil Gas Published Level.
- 4. A bold font style and red shading indicates that the concentration exceeds the applicable 2024 IDEM R2 Residential Indoor Air Action Level.
- 5. Winter Heating Season is when building windows and doors are closed and the building heating system is in operation (when indoor air temperature is consistently at least ten degrees higher than the outdoor temperature).
- 6. Summer Cooling Season is when building windows and doors are closed and the building cooling system is in operation.

Table 2. Exterior Soil Gas Analytical Results (cVOCs)

Fabric Care Center

5760 West Morris Street, Indianapolis, IN 46241

IDEM VRP No: 6150101

Address	Season	Sample Location	Sample ID	Туре	Date	PCE	TCE	cDCE	tDCE	VC
Chemical Abstracts Service Registry Number (CASRN)						127-18-4	79-01-6	156-59-2	156-60-5	75-01-4
	Shallow Residential Exterior Soil Gas Published Level (Shallow RSGe PL) (ug/m3)						20	400	400	20
		SG-01	SG-01_SG_200616	Soil Gas	06/16/20	54.8	<1.2	<1.8	<1.8	<0.57
		SG-02	SG-02_SG_200616	Soil Gas	06/16/20	102	<1.2	<1.8	<1.8	<0.57
		DUP-01	DUP-01_SG_200616	Soil Gas	06/16/20	71.2	1.5	<1.4	1.8	<0.44
Halal Market	Winter Heating	SG-03	SG-03_SG_200616	Soil Gas	06/16/20	379	<6.9	<10.2	<10.2	<3.3
5768 W Morris St	Winter Heating Season 2024									
(Commercial)		SG-04	SG-04_SG_200616	Soil Gas	06/16/20	150	<1.3	<1.8	<1.8	<0.60
		SG-05	SG-05_SG_200616	Soil Gas	06/16/20	49.6	<1.1	<1.6	<1.6	<0.50
		SG-06	SG06:A032824	Soil Gas	3/28/24	1,180	<10.7	<198	<396	<12.8

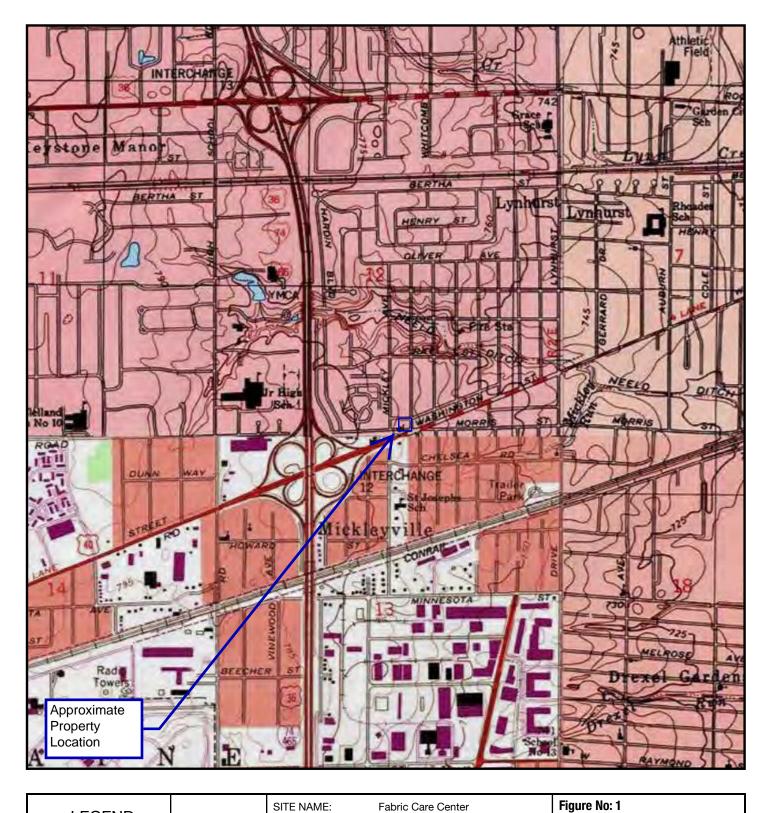
Notes:

- 1. Air analytical results are presented in micrograms per cubic meter (ug/m3).
- 2. Gray shading indicates that air sample collected from below grade sample point.
- 3. A bold font style and yellow shading indicates that the concentration exceeds the applicable 2024 IDEM R2 Shallow Residential Exterior Soil Gas Published Level.
- 4. Winter Heating Season is when building windows and doors are closed and the building heating system is in operation (when indoor air temperature is consistently at least ten degrees higher than the outdoor temperature).
- 5. Summer Cooling Season is when building windows and doors are closed and the building cooling system is in operation.



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Figures







TheELAMGroup

ADDRESS: 5760 W Morris St CITY: Indianapolis STATE: Indiana ZIP CODE: 46241 COUNTY: Marion TOWNSHIP NAME: Wayne TOWNSHIP LINE: T15N RANGE LINE: R₂E SECTION:

UTM Coordinates: 16S 563480m E 4400340m N Source: https://dnrmaps.dnr.in.gov/apps/oilgaswells/

Fabric Care Center

Figure No: 1

Title: Property Location Map

Scale: 1:24,000 (1 inch = 2,000 ft)

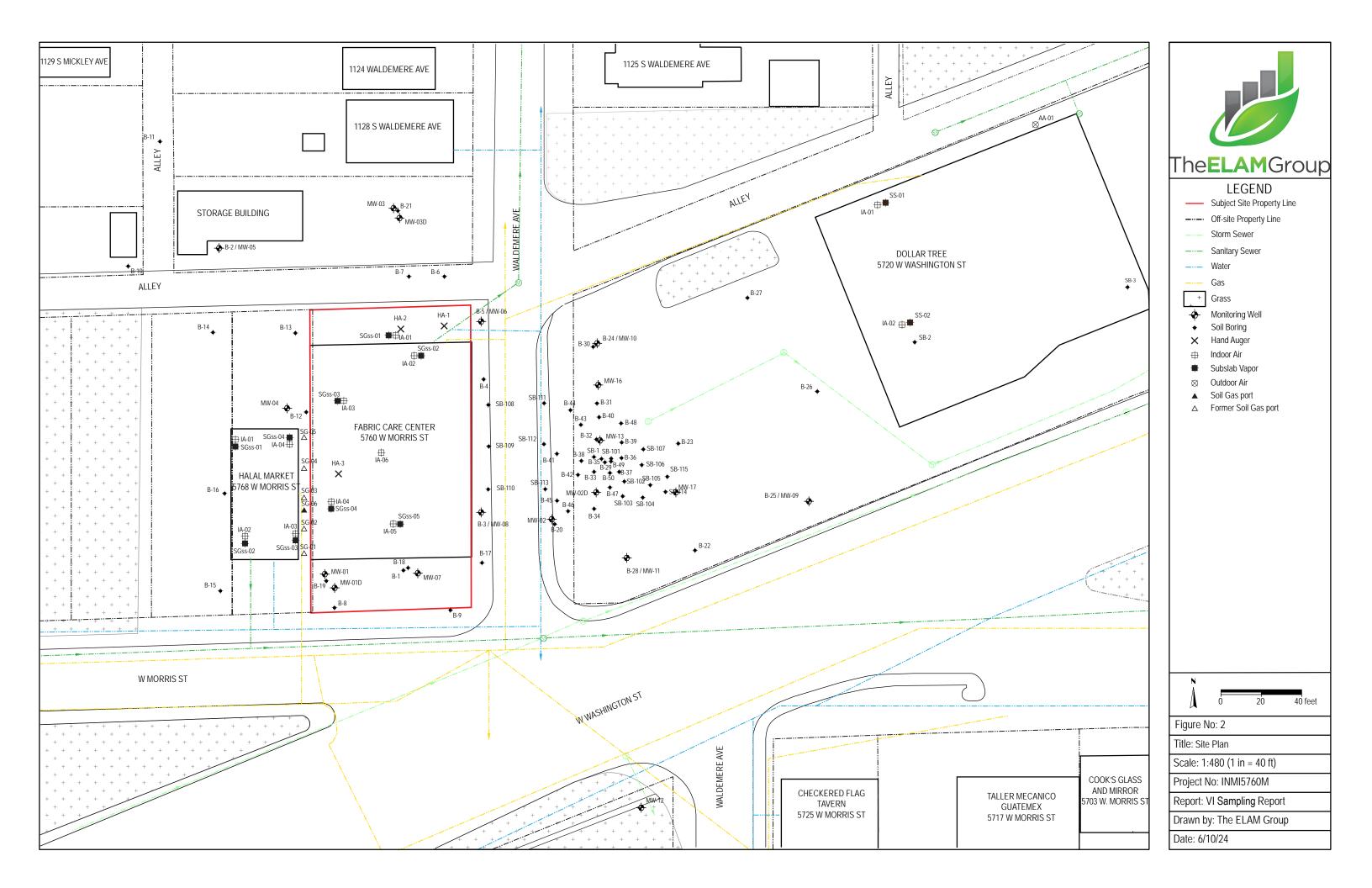
Project No: INMI5760M8.7

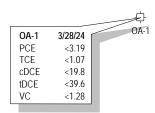
Report: VI Sampling Report

Drawn By: The ELAM Group

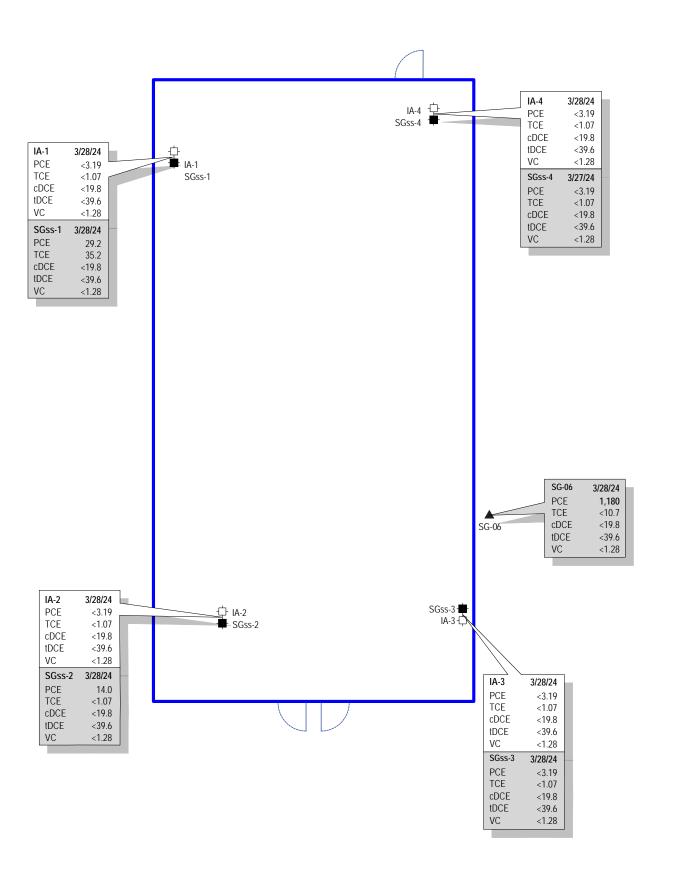
Date: 6/18/24

1,000 2,000 feet





1ST FLOOR PLAN



	RIA AL	RIA PL	RSGss PL	Shallow RSGe PL
PCE:	400	40	1,000	400
TCE:	20	2	70	20
cDCE:	400	40	1,000	400
tDCE:	400	40	1,000	400
VC:	20	2	60	20



LEGEND

- SGss Gas Sampling Point
- Soil Gas port

Notes

- 1. Building plan shown is located at 5768 W Morris St. Indianapolis, IN.
- 2. **Bold** result indicates exceedance of applicable Published Level.
- 3. **Bold** and underline indicates exceedance of applicable Action Level.

PCE Tetrachloroethene
TCE Trichloroethene
cDCE cis-1,2-Dichloroethene
tDCE trans-1.2-Dichloroethene
VC Vinyl Chloride

VC Vinyl Chloride

RIA AL Residential Indoor Air Action

Level

RIA PL Residential Indoor Air Published

RSGss PL Residential Subslab Soil Gas

Published Level

Residential Shallow Exterior Soil Gas Published Level

(Values reported in µg/m³)



Figure No: 3

RSGe PL

Title: Winter Season VI Analytical Data

Scale: 1:120 (1 in = 10 ft)

Project No: INMI5760M

Report: VI Sampling Report

Drawn by: The ELAM Group

Date: 6/10/24



Project No. INMI5760M8.7

Date: 6/26/24

Appendix A

VI Sample Collection Field Documentation



Email: info@elamusa.com

Website: www.elamusa.com

Twitter: @elam_usa

888-510-ELAM

Fax: 317-567-9022

VAPOR INTRUSION ASSESSMENT BUILDING SURVEY

	PROJECT NAME: Fabric Care Centa DATE: 3/26/2024
F	ROJECT NUMBER: JUM 5760 M PERSONNEL: CS/Ju
	PHASE: 4.5 8.5 PROJECT MANAGER: CS
PF	ROJECT ADDRESS: 5760 W Morris St Frdianapolis
I	DEM PROGRAM ID: VRP 6150101
PAR	Γ I: GENERAL INFORMATION
Chemi	cals of Concern (check applicable options):
1	Chlorinated Solvents
	Petroleum Hydrocarbons
٥	Other (specify):
Rationa	ale for Vapor Intrusion Assessment (check applicable options):
	Odor Complaint
	Soil Impacts Greater Than Applicable Screening Levels
	Groundwater Impacts Greater Than Applicable Screening Levels
×	Other (specify) Total Request for Siple Collection @ 5768 W Warris
Anticipa	ated Vapor Intrusion Assessment Activities (check applicable options):
1	Install Sample Port(s) (circle applicable options) Soil Gas Y Sewer Gas / Subslab Vapor
100	Document Building Characteristics
280	Complete Chemical Inventory
700	Collect Vapor Intrusion Assessment Samples (circle applicable options): 3/23/24 Soil Gas / Sewer Gas Subslab Vapor / Crawl Space Air Indoor Air
	Other (specify):



Project Number: 5,000 Strong S

PART II: BUILDING CHARACTERISTICS

A. <u>General Info</u>	ormation_		
Property Address:	5768 W	Morris St J	holoura polic
Year Constructed:	1965	Morris St 7 961	
Use of Structure (circ	cle applicable options)	: Residential / Commercial / Inc	dustrial / Multi-unit
Floors Above Grade:	1	Ceiling Height (feet)	
Subslab Vapor/Moist	5	ions): Basement / Crawl Space (Slab on Grade
B. Basement De	etails (if applicable) (feet):		
	V	Poured / Other (specify):	
3			
Walls Cracked?	Yes / No	Walls Sealed?	Yes / No
Floor (circle applicab	le options): Dirt/Stone	es / Concrete Slab / Other (spec	ify):
Floor Cracked?	Yes / No	Floor Sealed?	Yes / No
Sump Present?	Yes / No	Water in Sump?	Yes / No

If yes, describe:

Water Intrusion? Yes / No



Dates 3/26/2021	
Project Number DVM 57601	į.
Building Survey Address 5768 w Moris S	1
Pageof	•

C. Heating/Cooling

Type o	f Heating System Used (check applicable options):
S	Furnace Heated Air Circulation
6	Hot Water Boiler / Radiators
	Steam Boiler / Radiators
	Heat Pump
	Space Heater(s)
	Electric Baseboards
	Fireplace / Stove
	Other (specify):
Type of	Cooling System Used (check applicable options):
X	Central Air Conditioning
	Window-mounted Air Conditioning
	Whole House Fan
	Portable Fans
	Other (specify):
Fuel Ty	pe (check applicable options):
Do	Electricity
So	Natural Gas
' □	Propane
	Fuel Oil
	Wood
	Coal
	Kerosene
	Other (specify):



Project Number EVMT 5 18 m.
Building Survey Address: 5767 www.ns >+
Page 4 of 7

D. <u>Utilities</u>

Туре	Source (circle one)	Floor Penetration (circle one)	
Water	Public D Private	Yes / No	
Sewer	Public Private	Yes / No	
Electricity	Overhead Underground	Yes / No	
Gas	Public / Private / Not Applicable	Yes / No	
Communications	Overhead / Underground	Yes / No	

Floor Drain(s) Present?: Yes No

Cleanout Plug(s) Intact? Yes / No Not Applicable

Additional Information (if applicable):

PART III: OCCUPANT INFORMATION

OCCUPANT NAME	AGE	SEX	OCCUPATION
Holal Waket Waker	5	M/F	
		M/F	
Customers		M/F	
		M/F	



Project Number

Potential Background Contaminant(s):

Do any occupants of the building smoke? Yes/No

Attached Garage? Yes

If yes, are vehicles stored in garage? Yes / No

If yes, gasoline / gas-powered equipment stored in garage? Yes / No

Dry cleaned items brought into structure

If yes, how often?:

greater than Cowoths When was the last dry cleaned garment brought home?:_

Do any occupants use solvents in work? Yes

What type?:

If yes, are their clothes washed at work? Yes / No

Are pesticides applied in / around the structure? Yes

What type?:

If yes, when was the most recent application?:

Has there ever been a fire in the building? Yes / No

If yes, when?:

Painting or staining completed in the building during the last 6 months? Yes

If yes, when?:

If yes, which room(s)?:

PART IV: CHEMICAL INVENTORY

Complete Chemical Inventory Form(s) to Identify:

- potential contamination sources found in the building (including attached garages)
- the location of the potential source(s) (floor & room), and
- whether the item was removed from the building 48 hours prior to the indoor air sampling event.

Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the start of the indoor air sampling event.



Project Number I NW15768W
Building Survey Address: 5768 W Morrs 4

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Chemical Name	Container type/size	Location	VOCs	cVOCs	Removed
Tide Hygienic Clean	n 1.14 Gallon	Wotchen	Y	Y	YW
Bathron Cleary	- 0,25 Graller	Kitchen	Y	Y /🜒	Y
Laundy Determi	4202	Kitzlu	Y / [N]	Y/10	₹ S
Landy Detent	- 4202	Kitchen	Y /	Y/80	Y M
Lysa milder Reno	~ 32 8Z	Kitche	Y/	Y/1	NA NA
Cloralen Bleach	3202	Kitchen	YI	Y/1	YN
Sur Sent showed	~ 1008 11	Kitchen	YI	Y 🚳	YIN
Dawn Proffessor	ed I gallon	Witchen	YW	Y/100	YAN
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N
			Y/N	Y/N	Y/N



Project Number: 1/M/5760/M

Stillding Survey Address: 5768 V Montil 57

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PART V: SAMPLE INFORMATION

■ Other (specify):

Record sample details on Summa Canister Air Sampling Form and attach to this Vapor Intrusion Assessment Building Survey

Record sample details on Chain of Custody Form and attach to this Vapor Intrusion Assessment Building Survey

Describe current conditions of the structure during the collection of vapor intrusion assessment samples:

	Windows / doors closed, and heating/cooling system operational
X	Windows / doors closed, and heating/cooling system not operational
	Windows / doors open, and heating/cooling system not operational

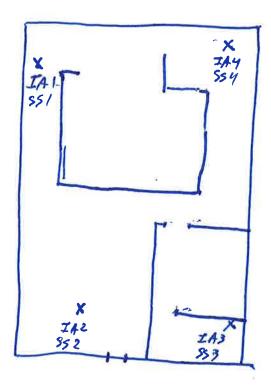
Identify / describe nearby potential air contamination sources found outside the building, such as dry cleaners, automotive maintenance facility, fueling station, industrial property, etc.:

Ony cleaners located next door



Project Number; 1NM | \$160M Suilding Survey Address 5768w Morris 57

Provide a sketch or description of sample locations, with sample IDs:



Attach other field notes and any potentially relevant information to this Vapor Intrusion Assessment **Building Survey**

Upload photographs associated with this Vapor Intrusion Assessment Building Survey to the project file

SUMMA CANISTER AIR SAMPLING FORM



400 mL

1 L

TO-14A

(TO-15)

TO-15 SIM

PAGE L OF 3 TheELAMGroup **GENERAL INFORMATION** SITE: 1 M M 1 5760M SAMPLING ADDRESS: 5768 W MORRIS ST Indy IN 4624/ SAMPLING EVENT (circle one): WINTERTIME SUMMERTIME BAROMETRIC PRESSURE: 30.27 Y TEMPERATURE (F): 3/ PRECIPITATION (circle one): WIND DIRECTION (circle one): SW) W NW SAMPLING PERSONNEL ID & AFFILIATION: Jadda Moffery -LAM SAMPLING INFORMATION **SAMPLE ID** CANISTER # FLOW CTRL # READING (1) DATE TIME CAN P ("Hg) 3/28/24 -29 SHUT IN TEST 848 IAOL: 4032824 07435 4654 -29 INITIAL 944 **METHOD** SOURCE **VALVE** 1044 - 26 1153 (circle one) (circle one) (circle one) (circle one) -23 2 400 mL TO-14A Air 24 hour 1555 -10 6 1658 1 L (TO-15) 8 hour SGss TO-15 SIM SGe 200 ml/min FINAL SAMPLE ID CANISTER # FLOW CTRL # READING (1) DATE CAN P ("Hg) TIME 848 -29 SHUT IN TEST 3/28/24 SS1:4032824 11068 04140 INITIAL -29 TYPE **METHOD** 1044 SOURCE VALVE -26 (circle one) (circle one) (circle one) (circle one) 2 -23 400 mL TO-14A Air 24 hour 6 1 L 1658 TO-15 SGSS 8 Hour TO-15 SIM SGe 200 ml/min FINAL 1753 SAMPLE ID FLOW CTRL # READING (1) CANISTER # DATE TIME CAN P ("Hg) 850 SHUT IN TEST 3/28/24 -29 I A02: A032824 10346 05308 INITIAL -29 127 **TYPE METHOD SOURCE** VALVE 1050 2 (circle one) (circle one) (circle one) (circle one) 1154 -24 TO-14A -13 400 mL ATT 24 hour 1557 (10-15) SGss 8 hour 1 L 1659 -9 (6D TO-15 SIM SGe 200 ml/min FINAL 1766 -6 SAMPLE ID CANISTER # FLOW CTRL # READING (1) DATE TIME CAN P ("Hg) SHUT IN TEST 3/28/24 850 -29 557:A032824 947 -29 19625 07309 INITIAL SOURCE 1050 VALVE 2 1154 (circle one) (circle one) (circle one) (circle one)

(1) Pressure reading recording guidelines for various time-weighted average (TWA) valves:

24 hour

(8 hour)

200 ml/min

FINAL

1557

1659

a. 24-hour TWA: Initial, Hour 1, Hour 2, Hour 22, Hour 23, and Final

Air

SGSS

SGe

- b. 8-hour TWA: Initial, Hour 1, Hour 2, Hour 6, Hour 7, and Final
- b. 200 mL/min: Initial and Final (5 min for 1 L, and 30 min for 6 L)

SUMMA CANISTER AIR SAMPLING FORM



PAGE 2 OF 3

			GENERAL IN	IFORMATION			
SITE: 11	MI 5766	for					
SAMPLING AD			rris ST	Ind. I	N 4624	/>	
SAMPLING EV	'ENT (circle one		SUMMERTIM		WINTERTIN	*****************	
TEMPERATUR			RIC PRESSURE:	30,23	PRECIPITATIO	ON (circle one	e): Y 🗇
WIND DIRECT	TION (circle one	e): N	NE E	SE	s (SV	***************************************	NW
SAMPLING PE	RSONNEL ID &	AFFILIATION:	5M	ELAN		***************************************	***************************************
				NFORMATION			
SAME	PLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
				SHUT IN TEST	3/28/24	915	- 29
I AO3 i AO	32824	4684	07301	INITIAL		951	-29
TYPE	METHOD	SOURCE	VALVE	l l		1055	-26
(circle one)	(circle one)	(circle one)	(circle one)	2		1156	-Z3
400 mL	TO-14A	Air	24 hour	G		1559	-15
1 L	TO-15	SGss	8 hou	7		1700	-82
6 7	TO-15 SIM	SGe	200 ml/min	FÎNAL	V	1860	7
SAMP	PLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
				SHUT IN TEST	3/28/24	925	-29
FD1:403	32824	15563 05303	05303	INITIAL	•	951	-29
TYPE	METHOD	SOURCE	VALVE		i l	1055	-26
(circle one)	(circle one)	(circle one)	(circle one)	2		1154	-25
400 mL	TO-14A	AID	24 hour	6		1559	-15
1 L	(10-15)	SGss	8 hour	7		1700	-11
6 D	TO-15 SIM	SGe	200 ml/min	FINAL	V	1800	_6
SAMP	LE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
				SHUT IN TEST	3/26/24	916	- 3U+
553:A03	2624	10025	08007	INITIAL		951	-30+
TYPE	METHOD	SOURCE	VALVE	1		1055	-28
(circle one)	(circle one)	(circle one)	(circle one)	2	Ì	1156	-44
400 mL	TO-14A	Air	24 hour	6		1559	-16
1 L	TØ-15	SGSS	(8 hour)	7	Î	1700	- 13
(67)	TO-15 SIM	SGe	200 ml/min	FINAL	4	1800	- 9
SAMP	LE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
				SHUT IN TEST	3/28/24	920	-30
IA04 A	132824	1/081	07256	INITIAL		955	-30
TYPE	METHOD	SOURCE	VALVE	1		1055	-28
(circle one)	(circle one)	(circle one)	(circle one)	ک		1157	-28 -25
400 mL	TO-14A	Air	24 hour	G		1558	-19
1 L	(TO-15)	SGss	(8 hour)	7		1701	-10
6 y	TO-15 SIM	SGe	200 ml/min	FINAL	V	1803	-7

- (1) Pressure reading recording guidelines for various time-weighted average (TWA) valves:
 - a. 24-hour TWA: Initial, Hour 1, Hour 2, Hour 22, Hour 23, and Final
 - b. 8-hour TWA: Initial, Hour 1, Hour 2, Hour 6, Hour 7, and Final
 - b. 200 mL/min: Initial and Final (5 min for 1 L, and 30 min for 6 L)

SUMMA CANISTER AIR SAMPLING FORM



PAGE 3 OF 3

TheELAMGro	up		CENEDAL TA	IFORMATTON			3E OF
SITE: //	M157601	10	GENERAL IN	IFORMATION			
			16 6				
SAMPLING AL	ENT (circle one	gw Morr	15 57 7	dy, ZN	46241		
	E(F): 31		IC PRESSURE;		WINTERTIME		V
					PRECIPITATION		
	ION (circle one		NE E	SE	S SW	W	NW
SAMPLING PE	RSONNEL ID &	AFFILIATION:		ELAM			
CAMI	DI E ID	CANISCTED #		NFORMATION	5.475		1
SAPII	PLE ID	CANISTER #	FLOW CTRL #		DATE	TIME	CAN P ("Hg)
SCU- AG	27624	11074	61.61.61	SHUT IN TEST	3/28/24	920	-30
554: AG		1/074	04648	INITIAL		955	-30
TYPE	METHOD	SOURCE	VALVE			1055	-27
(circle one)	(circle one)	(circle one)	(circle one)	ے		1/57	-23
400 mL	TO-14A	Air	24 hour	ے		120/15	
1 L	(70-15)	SGSS	8 hour	7		1701	-11
(6 L)	TO-15 SIM	SGe	200 ml/min	FINAL	$-\psi$	1903	- 7
SAMI	PLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
04.4			030 0	SHUT IN TEST	3/28/24	1658	-30
0A1:A0)	2827	91515	02225	INITIAL	1	1100	-36
TYPE	METHOD	SOURCE	VALVE			1200	-58
(circle one)	(circle one)	(circle one)	(circle one)	2		1300	-26
400 mL	TO-14A	(AID)	24 hour	6	AV.	1687	-14
1 L	(0-15)	SGss	8 hour	7		1758	-11
60	TO-15 SIM	SGe	200 ml/min	FINAL	V	1858	- 8
SAME	LE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
		84046 6676		SHUT IN TEST	3/28/24	1016	85-
566:AC	32824		5676	INITIAL		1020	- 28
TYPE	METHOD	SOURCE	VALVE			1501	55-
(circle one)	(circle one)	(circle one)	(circle one)	2		5501	-19
400 mL	TO-14A	Air	24 hour	3		1023	-16
(IL)	(70-15)	SGss	8 hour	4		1024	- 1/
6 L	TO-15 SIM	(SGe)	200 ml/min	FINAL	V	2025	-4
SAMP	LE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
				SHUT IN TEST			
				INITIAL			
TYPE	METHOD	SOURCE	VALVE				<u> </u>
(circle one)	(circle one)	(circle one)	(circle one)				
400 mL	TO-14A	Air	24 hour				
1 L	TO-15	SGss	8 hour				
6 L	TO-15 SIM	SGe	200 ml/min	FINAL			·

- (1) Pressure reading recording guidelines for various time-weighted average (TWA) valves:
 - a. 24-hour TWA: Initial, Hour 1, Hour 2, Hour 22, Hour 23, and Final
 - b. 8-hour TWA: Initial, Hour 1, Hour 2, Hour 6, Hour 7, and Final
 - b. 200 mL/min: Initial and Final (5 min for 1 L, and 30 min for 6 L)



Date;_	3/28/	124
		5760118,5
Personnel:	JM	

Soil Gas Sample Form

Sample Loca	ation: <u>36 %</u>	Purge Volume: <i>1000</i> (mL)
Temperature	: <i>3/_°</i> (°F)	Barometric Pressure: <u> 30, 2</u> (in Hg)
Precipitation	(circle one): Y (N) Wind	d Direction (circle one): N (NE) E SE S SW W NW
		Shut in Test
Time	Pressure (in Hg)	Notes
1010	- 58	
10 16	-28	
		Helium Leak Test
Time	Helium Concentration in Shroud While Purging	Notes
1016	47	
1020	12	
Helium Conc	entration in Purged Soil (Gas: 0.0 %

VOC Concentration in Purged Soil Gas:_____

Sample Information

Sample ID		Canister #	Flow Control #	Field Data	Time	Pressure (in Hg)
566:4032	874	84046	0076	initial	1020	- 28
Туре	Method	Source	Valve			
1 L Summa	TO-15	SGe	200 mL/min	final	1025	-4

NOTES:

		1	
EnvisionAir Proj#:	Page	of	1 =
			V64

CHAIN OF CUSTODY RECORD

EnvisionAir | 1441Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

Client: The ELAK G	040	P.O. No	umber://	MI 5760	148.5			FOLIE	CTED	DADAME		1			
Report 6/44 Kt V/44	47.00		Name or				K	EQUE	SIED	PARAME	IEKS				
Address: Nobles ville	I.A		14151	160 14				/	/		//_				17
Report To: Jason Olga	nel .	Sample	ed by:	Mothe	77				/4	3//		FIN		SIC	NAIR
Phone:		QA/QC	Required:	(circle if appli	icable) el IV		/			///		LI	A V I	210	INAIIX
Invoice Address:	Tanvia Le		ing Units r 3 mg/m	needed: (circ	ile) PPMV	,		Se Line		//	Sampling Type: Soil-Gas: □ Sub-Slab: □			vision-air.c	
Desired TAT: (Please Circle One 1 day 2 days 3 days Std (5	bus. days)	Media type	: 1LC = 1 Liter 6LC = 6 Liter TB = Tedlar TD = Therma	Canister		1	10 5 6 E	3/		Solution	Indoor-Air:	Canister	WWW.en		om
Air Sample ID	Media Type (see code above)	Coll. Date (Grab/Comp	Coll. Time (Grab/Comp	Coll. Date (Comp. End)	Coll. Time					Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
IALABRACE	GLC :	3/28	944	3/28	1753	X	×			4654	07435	-29	-4		
TAZ A032824	646	3124	947	3/28	1756	X				10346	05308	- 29	-6		
IA3 A012824	GLC	3/24	951	3/28	1800	X				4684	07301	-29	-7		
JA4 4032824	GLC	3/24	955	3/28	1403	X				11089	07256	-30	-7		
551: A032824	640	3/28	944	3/28	1753	X				11068	04140	-29	-5		
552: A032824	6 LC	3/28	747	3/28	1756	X				19625	0 7309	-29	-6		
593 1 A032824	GLC	3/28	951	3/28	1400	X				10015	08067	-30+	- 9		
554: A032824	GLC	3/28	955	3/28	1803	X				1/074	064-6404	-30	-7		
FD1: A032824	6LC	3/28	951	3/28	1900	X				15563	05303	- Man	-6		
A01: 40)2624	GLC	3/28	1100	3/24	1858	X				91515	0225	-30	-8		- Acc
Comments: OAI (AD)	32824	Í												Į	
Relino	quished l	7 To			Date		Time		\sim	Rec	eived by:		Da	te	Time
Ladde (Herly	-10		14/1	1/24	13	100			July 1			4/11/	14	1700

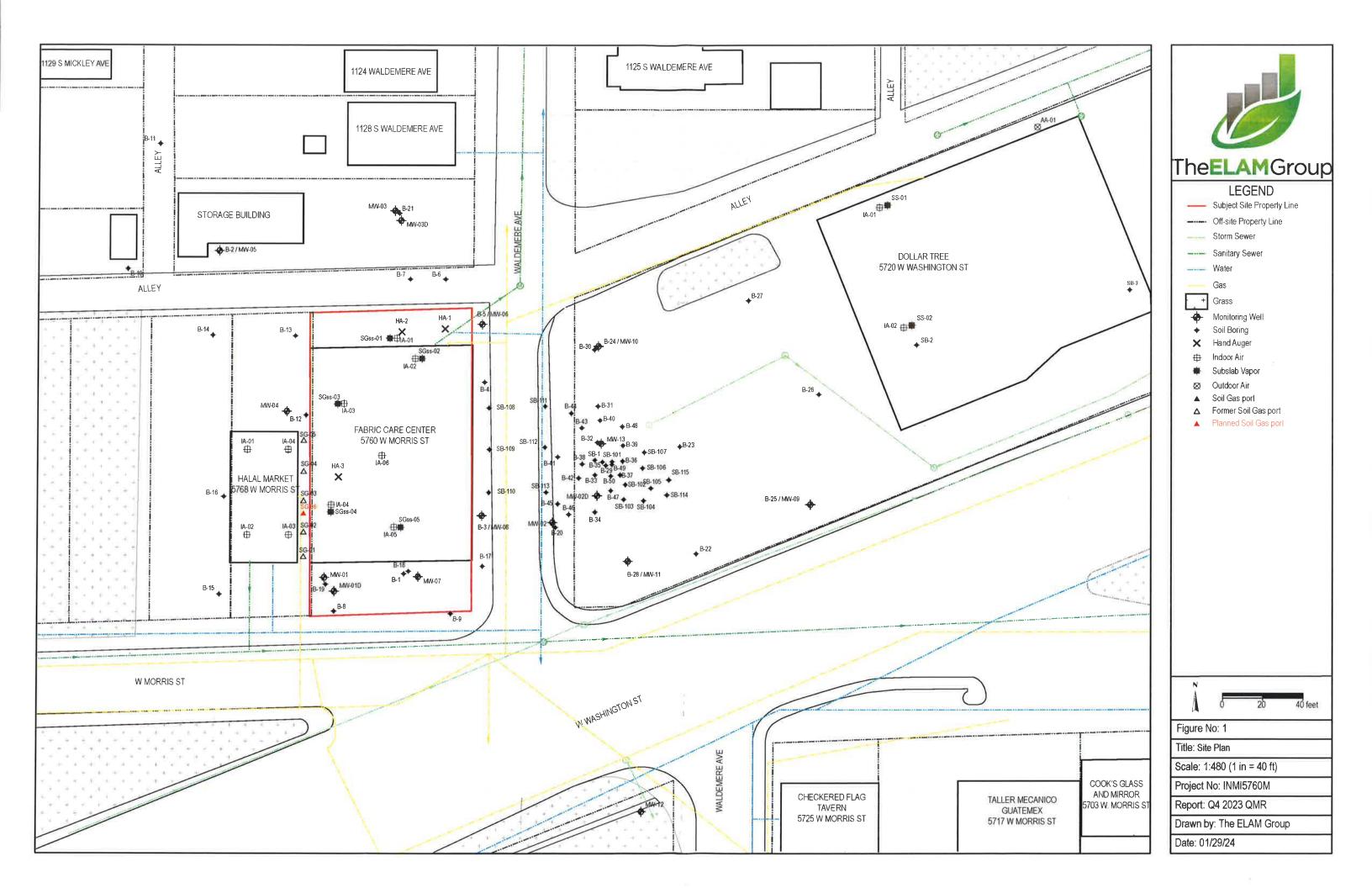
4/1/24

EnvisionAir Proj#:	Page of _	149

CHAIN OF CUSTODY RECORD

EnvisionAir | 1441Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

Client: The ELAM GO		IPO N	umbor	VM157	C x 1/2 40	3				(3	717) 551 000.) rux. (c	717) 331	0002	
Report / Lake year	00/3			4	50171 W		R	EQUE	STED	PARAME	TERS				
Address:	C, IN	Project	t Name or MIL 57					Ť	/	13/		-			
Report To:		Sample		Motte	+				/.		//	LER	11/1	CIC	MIAID
Phone:			Required:	(circle if app	icable)		/	/ ,			/ 省		AVI	SIC	NAIR
Invoice Address:	V Janus	Report	ing Units r	needed: (circ	cle) PPMV			\$ 1 X	\$	//	Sampling Type: Soil-Gas:				
Desired TAT: (Please Circle One 1 day 2 days 3 days Std (5	-	Media type	e: 1LC = 1 Liter 6LC = 6 Liter TB = Tedlar	Canister Canister		1	1 2 2 2 2 2 2 2 2	3		Sa la	Sub-Slab:	Consistan		vision-air.c	om
Air Sample ID	Media Type (see code above)	Coll. Date (Grab/Comp	Coll. Time (Grab/Comp	Coll. Date (Comp. End)	Coll. Time (Comp. End)					Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
56.06 : A03 2424	16	3/28	1038	3/24	1025	X				94046	0076	-78	-4		
															0 1
Comments:															
Reling	uished l	oy:			Date	Т	ime	T		Rec	eived by:		Da	te	Time



Parcel Num	ber		Ownership				Transfer o	f Owners	hip		Year 20	23	Card 1		
9003419			Name				Date			Grantor		Valid		unt	Type
County	Marion, IN		RAINS, JOHN	F			Nov 21, 20	12 RAIN	IS, PAULA - Ja	n 01, 1900		Y		0.00 \$	Straight
Township	WAYNE		-												
Corporation	n		-												
District															
Plat	000000000	0	Address												
Map	0000000000		Address	OLKOT											
Alt Parcel Property Cl		1-061.000-930	1310 S NORF		10		-								
Tax District			INDIANAPOLI	S, IN 46241-34	-13									-	
	ood 9400331-was	shinaton et airl										_			
recignisorne	school to lyn													_	
Dranasti A		ildi Şt	-												
Property Ac			-							VALUA [*]	TION RECORI	D			
5766 W MO				000 1050			Assessme	nt Year				023	2022		202
INDIANAPO	LIS, IN 46241		Account	2094958	In.	- 1	Reason fo				20	023	2022		202
			Book Legal		Page		1.00.00.00.00			stead-C1		0	0		
				ADDENIC LZCO						ential-C2		o	0		- 4
			BILLINOREG	ARDENS L758				Land		Residential-C3	39,	300	39,300		35,70
									Total	Land		300	39,300		35,70
	Pub Utilities Street								Home	stead-C1		0	0		
Level	Water Pav								Resid	ential-C2		0	0		
High	Sewer Unp						ımpr	ovement	IS Non-F	Residential-C3	46,	500	46,500		42,20
Low		Declining Walk Other							Total	lmp	46,	500	46,500		42,20
Swampy	Alie	Blighted						T-4-L A		Trans.			100		
								Total As	ssessed Va	ilue:	85,	800	85,800		77,90
	Property Sub	Class:	COM OTR RE	TAIL STRUCT	URES-429						PRINTE	ED EROM	MARION CO	OLINTY	ΙΝΙΣΙΔΝΙΔ
			1		37.20 .20						11111112	LD I I IOW	WIN III II OI V O	OOM 1, 1	INDIAIN
	Mer	norandum						LAND D	DATA AND	COMPUTA	TIONS				
				Land	Actual	Effective	Effective					1			
				Type	Frontage	Frontage	Depth	Factor	Base Rate	Adjusted Rate	Estimated Value	Influence	Factor	Land Va	alue
				1150	Tromage	Tromago	Dopin								
															-
				2											
							10								
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		SKE	TCH/AREA TABLE ADDENDU	M		
Parcel Number						
9003419						
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roperty Address						
766 W MORRIS ST						
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Date: 6/26/24

Appendix B

Exterior Soil Gas Sample Port Construction Diagram

Column C	IDEM VE	RP NO:			615	0101					SITE ADDRES	S:	5760 W N	Morris St, Indiana	polis, IN 46	5231				
Control Cont			MANAGER	<u>:</u>						_					, , , , , , , ,			1	TheELAMGroup	
Companies Comp	LOGGED	BY:			Chris :	Sloffer and Jadda M	offett	DATE:	3/26	5/24	WEATHER:		54 F, Clou	udy and Windy						ID
Part	CHECKE	D BY &	LPG NO:		James	Hogan, LPG No. 21	.66	DATE:	6/19	9/24	EQUIP, MODE	L, CAL., BG.:	NA						SG-06	5
March Marc	CONTRA	ACTOR:			The El	_AM Group					EQUIP, MODE	L, CAL., BG.:	NA						SHEET	
Marchine Marchine	DRILLER	R NAME	& LICENS	E NO:	Chris :	Sloffer, Water Well D	Orilling Lic	cense N	o. 2128	_		L, CAL., BG.:	NA					1	OF	1
March Marc				NT:						_						1	DRILLING ST	ART/FINIS	SH	
Process Proc					_					_								1	1	
Application					-	1												+	-	
Second S	TYPE OF	DRILL	FLUIDS:		None			_			DEPTH:	NA	N/	A	NA	DATE				
	ELEVATION (ft. amsl)	DEPTH (ft.)	BLOW COUNTS (6"/12"/6")	DRIVE	RECOVERY	SAMPLE NUMBER	PID (ppm)	LOG SAMPLE	LAB SAMPLE	SOIL GRAPH			DE	SCRIPTION			BOREHOLE			LEL
78.6.5 5	768.65	- 1 - 2 - 3									Steel Flushmo Benseal 1.0' -	ount Manway ir 4.0'			•					
758.65 10	763.65	- - 6 - - 7 -									Soil Gas Impla	ant 4.5' - 4.6'								
753.65 15	758.65	- 10 - 11 - 11																		
748.65 20 CONSTRUCTION INFO DIA. COMPOSITION/TYPE LENGTH (ft) SURVEY INFORMATION TOP BOTTOM DEPTH(S) LAB SAMPLE ID DATE TIME S/G/A PRES		- 13 -																		
19	753.65	- 16 -																		
CONSTRUCTION INFO DIA. COMPOSITION/TYPE LENGTH (ft) SURVEY INFORMATION TOP BOTTOM DEPTH(S) LAB SAMPLE ID DATE TIME S/G/A PRES BOREHOLE/GROUND SURFACE: 2" Hand Auger 5 GROUND SURFACE: 768.65 763.65 0' - 5' 0' - 4.6' 0' - 4.6' 0' - 4.6' 0' - 4.6' 0' - 4.6' 0' - 4.6' 0' - 4.6' 0' - 4.6' 0' - 4.0' 0' - 4.0' 0' - 4.0' 0' - 4.0' 0' - 4.0' 0' - 4.0' 0' - 4.0' 0' - 4.0' 0' - 4.0' 0' - 4.0' 0' - 4.0' </td <td></td>																				
BOREHOLE/GROUND SURFACE: 2" Hand Auger 5 GROUND SURFACE: 768.65 763.65 0' - 5' WELL CASING: 0.25" TEF Tubing 4.5 WELL CASING: 768.65 764.15 0' - 4.5' WELL SCREEN (incl. slot size): 0.25" SGE Implant 0.1 WELL SCREEN: 764.15 764.05 4.5' - 4.6' JOINTS BT CASING SEGMENTS: NA NA NA NA NA NA SAND FILTER PACK: 2" #5 Quartz Sand 1 SAND FILTER PACK: 764.65 763.65 4.0' - 5.0' BENTONITE SEAL: 2" Benseal 3 BENTONITE SEAL: 767.65 764.65 1.0' - 4.0' ANNULAR FILL/GROUT: NA NA NA NA NA SURFACE SEAL: 12" Concrete 1 SURFACE SEAL: 768.65 767.65 0' - 1.0'	748.65	20						L										L		
BOREHOLE/GROUND SURFACE: 2" Hand Auger 5 GROUND SURFACE: 768.65 763.65 0' - 5' WELL CASING: 0.25" TEF Tubing 4.5 WELL CASING: 768.65 764.15 0' - 4.5' WELL SCREEN (incl. slot size): 0.25" SGE Implant 0.1 WELL SCREEN: 764.15 764.05 4.5' - 4.6' JOINTS BT CASING SEGMENTS: NA NA NA NA NA NA SAND FILTER PACK: 2" #5 Quartz Sand 1 SAND FILTER PACK: 764.65 763.65 4.0' - 5.0' BENTONITE SEAL: 2" Benseal 3 BENTONITE SEAL: 767.65 764.65 1.0' - 4.0' ANNULAR FILL/GROUT: NA NA NA NA NA SURFACE SEAL: 12" Concrete 1 SURFACE SEAL: 768.65 767.65 0' - 1.0'	CON	VSTRUC	TION INF	2	DIA.	COMPOSITION	TYPE	LENGT	TH (ft)	SURVE	Y INFORMATI	ON TOP	воттом	DEPTH(S)	LA	B SAMPLE ID	DATE	TIME	S/G/A	PRES
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SURFACE SEAL: 12" Concrete 1 SURFACE SEAL: 768.65 767.65 0' - 1.0'	BENTON	IITE SEA	NL:		2"			3	3	BENTO	NITE SEAL:	767.65	764.65	1.0' - 4.0'				L		
	ANNULA	R FILL/	GROUT:		NA	NA		N	Α	ANNUL	AR FILL/GROU	JT: NA	NA	NA	L			L		
PROTECTIVE CASING 6" Steel Flushmount Manway PROTECTIVE CASING: 768.65 767.65 0'-1.0'	SURFAC	E SEAL:			12"	Concrete		1	L	SURFA	CE SEAL:	768.65	767.65	0' - 1.0'						
	PROTEC	TIVE CA	SING		6"	Steel Flushi	mount Ma	anway		PROTE	CTIVE CASING	G: 768.65	767.65	0' - 1.0'						



Project No. INMI5760M8.7

Date: 6/26/24

Appendix C

Laboratory Analytical Report with Level IV Data Package



1441 Sadlier Circle West Drive Indianapolis, IN 46239 Ph: 317-351-0885 Fax: 317-351-0882 www.envision-air.com

Mr. Jason Oland The ELAM Group 161 Lakeview Drive Suite B Noblesville, IN 46060

April 12, 2024

EnvisionAir Project Number: 2024-187 Client Project Name: INMI5760M

Dear Mr. Oland,

Please find the attached analytical report for the samples received April 1, 2024. All test methods performed were fully compliant with local, state, and federal EPA methods unless otherwise noted. The project was analyzed as requested on the enclosed chain of custody record. Please review the comments section for additional information about your results or Quality Control data.

Feel free to contact me if you have any questions or comments regarding your analytical report or service.

Thank you for your business. EnvisionAir looks forward to working with you on your next project.

Yours Sincerely,

David Norris Project Manager EnvisionAir, LLC



1441 Sadlier Circle West Drive Indianapolis, IN 46239 Ph: 317-351-0885 Fax: 317-351-0882 www.envision-air.com

Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Sample Summary

Canister Pressure / Vacuum

			START	START							<u>Lab</u>	
			Date	Time	End Date	End Time	Date	Time	Initial Field	Final Field	Received	
Laboratory Sample Number:	Sample Description:	Matrix:	Collected:	Collected:	Collected:	Collected:	Received:	Received	(in. Hg)	(in. Hg)	(in. Hg)	
24-998	IA1:A032824	Α	3/28/24	9:44	3/28/24	17:53	4/1/24	13:00	29	4	4	
24-999	IA2:A032824	Α	3/28/24	9:47	3/28/24	17:56	4/1/24	13:00	29	6	6	
24-1000	IA3:A032824	Α	3/28/24	9:51	3/28/24	18:00	4/1/24	13:00	29	7	7	
24-1001	IA4:A032824	Α	3/28/24	9:55	3/28/24	18:03	4/1/24	13:00	30	7	7	
24-1002	SS1:A032824	Α	3/28/24	9:44	3/28/24	17:53	4/1/24	13:00	29	5	5	
24-1003	SS2:A032824	Α	3/28/24	9:47	3/28/24	17:56	4/1/24	13:00	29	6	6	
24-1004	SS3:A032824	Α	3/28/24	9:51	3/28/24	18:00	4/1/24	13:00	30	9	9	
24-1005	SS4:A032824	Α	3/28/24	9:55	3/28/24	18:03	4/1/24	13:00	30	7	7	
24-1006	FD1:A032824	Α	3/28/24	9:51	3/28/24	18:00	4/1/24	13:00	29	6	6	
24-1007	OA1:A032824	Α	3/28/24	11:00	3/28/24	18:58	4/1/24	13:00	30	8	8	
24-1008	SG06:A032824	Α	3/28/24	10:28	3/28/24	10:25	4/1/24	13:00	28	4	4	



1441 Sadlier Circle West Drive Indianapolis, IN 46239 Ph: 317-351-0885 Fax: 317-351-0882 www.envision-air.com

Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: IA1:A032824 Sample Collection START Date/Time: 3/28/24 9:44

Sample Collection END Date/Time: 3/28/24 17:53
EnvisionAir Sample Number: 24-998 Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m ³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



Compounds	Sample Results ug/m	Reporting Limit ug/m ³	<u>Flag</u>
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surr	9 ,		
Analysis Date/Time:	4-3-24/21	:43	
Analyst Initials	tjg		



1441 Sadlier Circle West Drive Indianapolis, IN 46239 Ph: 317-351-0885 Fax: 317-351-0882 www.envision-air.com

Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15 Analytical Batch: 040324AIR

Client Sample ID: IA2:A032824 Sample Collection START Date/Time: 3/28/24 9:47

Sample Collection END Date/Time: 3/28/24 17:56
EnvisionAir Sample Number: 24-999 Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m ³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



Compounds	Sample Results ug/m ³	Reporting Limit ug/m ³ Fla	a <u>g</u>
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surro	o ,		
Analysis Date/Time:	4-3-24/22:27		
Analyst Initials	tjg		



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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15 Analytical Batch: 040324AIR

Client Sample ID: IA3:A032824 Sample Collection START Date/Time: 3/28/24 9:51

Sample Collection END Date/Time: 3/28/24 18:00 EnvisionAir Sample Number: 24-1000 Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m ³	Reporting Limit ug/m ³	<u>Flag</u>
4-Ethyltoluene	< 492	492	<u></u>
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



<u>Compounds</u>	Sample Results ug/m³	Reporting Limit ug/m³	<u>Flag</u>
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrog	ate) 100%		
Analysis Date/Time:	4-3-24/23:11		
Analyst Initials	tjg		



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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: IA4:A032824 Sample Collection START Date/Time: 3/28/24 9:55

Sample Collection END Date/Time: 3/28/24 18:03 EnvisionAir Sample Number: 24-1001 Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m ³	Reporting Limit ug/m ³	<u>Flag</u>
4-Ethyltoluene	< 492	492	<u></u>
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



Compounds	Sample Results ug/m ³	Reporting Limit ug/m³	Flag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrog	ate) 97%		
Analysis Date/Time:	4-4-24/02:06		
Analyst Initials	tjg		



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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: SS1:A032824 Sample Collection START Date/Time: 3/28/24 9:44

Sample Collection END Date/Time: 3/28/24 17:53
EnvisionAir Sample Number: 24-1002 Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m ³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



Compounds	Sample Results	ug/m³	Reporting Limit ug/m ³	<u>Flag</u>
Chloroform	< 0.83		0.83	
Chloromethane	< 20.6		20.6	
cis-1,2-Dichloroethene	< 19.8		19.8	
cis-1,3-Dichloropropene	< 4.54		4.54	
Cyclohexane	< 5510		5510	
Dibromochloromethane	< 0.85		0.85	
Dichlorodifluoromethane	< 49.5		49.5	
Ethyl Acetate	< 54.1		54.1	
Ethylbenzene	< 8.68		8.68	
Hexachloro-1,3-butadiene	< 1.07		1.07	
Isooctane	< 467		467	
m,p-Xylene	< 43.4		43.4	
Methylene Chloride	< 41.7		41.7	
Methyl-tert-butyl ether	< 36.1		36.1	
N-Heptane	< 410		410	
N-Hexane	< 176		176	
Naphthalene	< 0.524		0.524	
o-Xylene	< 43.4		43.4	
Propylene	< 172		172	
Styrene	< 426		426	
Tetrachloroethene	29.2		3.19	
Tetrahydrofuran	< 295		295	
Toluene	< 3770		3770	
trans-1,2-Dichloroethene	< 39.6		39.6	
trans-1,3-Dichloropropene	< 4.54		4.54	
Trichloroethene	< 1.07		1.07	
Trichlorofluoromethane	< 562		562	
Vinyl Acetate	< 176		176	
Vinyl Bromide	< 0.44		0.44	
Vinyl Chloride	< 1.28		1.28	
4-bromofluorobenzene (surrog	,	104%		
Analysis Date/Time:	4-3-	-24/23:54		
Analyst Initials		tjg		



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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: SS2:A032824 Sample Collection START Date/Time: 3/28/24 9:47

Sample Collection END Date/Time: 3/28/24 17:56
EnvisionAir Sample Number: 24-1003 Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m ³	<u>Flag</u>
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



<u>Compounds</u>	Sample Results ug/m ³	Reporting Limit ug/m ³ FI	ag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	14.0	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrog			
Analysis Date/Time:	4-4-24/00:38		
Analyst Initials	tjg		



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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15 Analytical Batch: 040324AIR

Client Sample ID: SS3:A032824 Sample Collection START Date/Time: 3/28/24 9:51

Sample Collection END Date/Time: 3/28/24 18:00 EnvisionAir Sample Number: 24-1004 Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



<u>Compounds</u>	Sample Results ug/m ³	Reporting Limit ug/m ³ F	lag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrog	ate) 98%		
Analysis Date/Time:	4-4-24/01:2	2	
Analyst Initials	tjg		



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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: SS4:A032824 Sample Collection START Date/Time: 3/28/24 9:55

Sample Collection END Date/Time: 3/28/24 18:03 EnvisionAir Sample Number: 24-1005 Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m ³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



<u>Compounds</u>	Sample Results ug/m ³	Reporting Limit ug/m ³	lag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrog	ate) 116%		
Analysis Date/Time:	4-4-24/02:51		
Analyst Initials	tjg		



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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: FD1:A032824 Sample Collection START Date/Time: 3/28/24 9:51

Sample Collection END Date/Time: 3/28/24 18:00 EnvisionAir Sample Number: 24-1006 Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m ³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



Compounds	Sample Results (ug/m³	Reporting Limit ug/m ³	<u>Flag</u>
Chloroform	< 0.83		0.83	
Chloromethane	< 20.6		20.6	
cis-1,2-Dichloroethene	< 19.8		19.8	
cis-1,3-Dichloropropene	< 4.54		4.54	
Cyclohexane	< 5510		5510	
Dibromochloromethane	< 0.85		0.85	
Dichlorodifluoromethane	< 49.5		49.5	
Ethyl Acetate	< 54.1		54.1	
Ethylbenzene	< 8.68		8.68	
Hexachloro-1,3-butadiene	< 1.07		1.07	
Isooctane	< 467		467	
m,p-Xylene	< 43.4		43.4	
Methylene Chloride	< 41.7		41.7	
Methyl-tert-butyl ether	< 36.1		36.1	
N-Heptane	< 410		410	
N-Hexane	< 176		176	
Naphthalene	< 0.524		0.524	
o-Xylene	< 43.4		43.4	
Propylene	< 172		172	
Styrene	< 426		426	
Tetrachloroethene	< 3.19		3.19	
Tetrahydrofuran	< 295		295	
Toluene	< 3770		3770	
trans-1,2-Dichloroethene	< 39.6		39.6	
trans-1,3-Dichloropropene	< 4.54		4.54	
Trichloroethene	< 1.07		1.07	
Trichlorofluoromethane	< 562		562	
Vinyl Acetate	< 176		176	
Vinyl Bromide	< 0.44		0.44	
Vinyl Chloride	< 1.28		1.28	
4-bromofluorobenzene (surrog	,	02%		
Analysis Date/Time:	4-4-2	24/03:37		
Analyst Initials		tjg		



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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: OA1:A032824 Sample Collection START Date/Time: 3/28/24 11:00

Sample Collection END Date/Time: 3/28/24 18:58
EnvisionAir Sample Number: 24-1007 Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m ³	Reporting Limit ug/m ³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



<u>Compounds</u>	Sample Results ug/m³	Reporting Limit ug/m ³	Flag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrog	ate) 105%		
Analysis Date/Time:	4-3-24/21:00		
Analyst Initials	tjg		



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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15 Analytical Batch: 040324AIR

Client Sample ID: SG06:A032824 Sample Collection START Date/Time: 3/28/24 10:28

Sample Collection END Date/Time: 3/28/24 10:25

EnvisionAir Sample Number: 24-1008 Sample Received Date/Time: 4/1/24 13:00 Sample Matrix: AIR

Compounds	Sample Results ug/m ³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 4920	4920	
4-Methyl-2-pentanone (MIBK)	< 20500	20500	
1,1,1-Trichloroethane	< 5460	5460	
1,1,2,2-Tetrachloroethane	< 3.36	3.36	1
1,1,2-Trichloroethane	< 2.10	2.10	1
1,1-Dichloroethane	< 40.5	40.5	
1,1-Dichloroethene	< 1980	1980	
1,2,4-Trichlorobenzene	< 7.42	7.42	
1,2,4-Trimethylbenzene	< 49.2	49.2	
1,2-dibromoethane (EDB)	< 0.32	0.32	1
1,2-Dichlorobenzene	< 601	601	
1,2-Dichloroethane	< 4.05	4.05	
1,2-Dichloropropane	< 4.62	4.62	
1,3,5-Trimethylbenzene	< 49.2	49.2	
1,3-Butadiene	< 2.21	2.21	
1,3-Dichlorobenzene	< 601	601	
1,4-Dichlorobenzene	< 6.01	6.01	
1,4-Dioxane	< 18.0	18.0	
2-Butanone (MEK)	< 29500	29500	
2-Hexanone	< 205	205	
Acetone	< 23800	23800	
Benzene	< 16.0	16.0	
Benzyl Chloride	< 4.14	4.14	1
Bromodichloromethane	< 5.36	5.36	1
Bromoform	< 103	103	
Bromomethane	< 38.8	38.8	
Carbon Disulfide	< 3110	3110	
Carbon Tetrachloride	< 6.29	6.29	
Chlorobenzene	< 230	230	
Chloroethane	< 132	132	



<u>Compounds</u>	Sample Results ug/m ³	Reporting Limit ug/m ³	Flag
Chloroform	< 8.30	8.30	
Chloromethane	< 206	206	
cis-1,2-Dichloroethene	< 198	198	
cis-1,3-Dichloropropene	< 45.4	45.4	
Cyclohexane	< 55100	55100	
Dibromochloromethane	< 8.52	8.52	
Dichlorodifluoromethane	< 495	495	
Ethyl Acetate	< 541	541	
Ethylbenzene	< 86.8	86.8	
Hexachloro-1,3-butadiene	< 10.7	10.7	
Isooctane	< 4670	4670	
m,p-Xylene	< 434	434	
Methylene Chloride	< 417	417	
Methyl-tert-butyl ether	< 361	361	
N-Heptane	< 4100	4100	
N-Hexane	< 1760	1760	
Naphthalene	< 5.24	5.24	
o-Xylene	< 434	434	
Propylene	< 1720	1720	
Styrene	< 4260	4260	
Tetrachloroethene	1,180	31.9	
Tetrahydrofuran	< 2950	2950	
Toluene	< 37700	37700	
trans-1,2-Dichloroethene	< 396	396	
trans-1,3-Dichloropropene	< 45.4	45.4	
Trichloroethene	< 10.7	10.7	
Trichlorofluoromethane	< 5620	5620	
Vinyl Acetate	< 1760	1760	
Vinyl Bromide	< 4.37	4.37	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surroga	ate) 107%		
Analysis Date/Time:	4-4-24/07:04		
Analyst Initials	tjg		



Analytical Report

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TO-15 Quality Control Data

EnvisionAir Batch Number: 040324AIR

Method Blank (MB):	MB Results (ppbv)	Reporting Limit (ppbv)	Flags
4-Ethyltoluene	< 100	100	
4-Methyl-2-pentanone (MIBK)	< 500	500	
1,1,1-Trichloroethane	< 100	100	
1,1,2,2-Tetrachloroethane	< 0.049	0.049	1
1,1,2-Trichloroethane	< 0.038	0.038	1
1,1-Dichloroethane	< 1	1	
1,1-Dichloroethene	< 50	50	
1,2,4-Trichlorobenzene	< 0.1	0.1	
1,2,4-Trimethylbenzene	< 1	1	
1,2-dibromoethane (EDB)	< 0.0041	0.0041	1
1,2-Dichlorobenzene	< 10	10	
1,2-Dichloroethane	< 0.1	0.1	
1,2-Dichloropropane	< 0.1	0.1	
1,3,5-Trimethylbenzene	< 1	1	
1,3-Butadiene	< 0.1	0.1	
1,3-Dichlorobenzene	< 10	10	
1,4-Dichlorobenzene	< 0.1	0.1	
1,4-Dioxane	< 0.5	0.5	
2-Butanone (MEK)	< 1000	1000	
2-Hexanone	< 5	5	
Acetone	< 1000	1000	
Benzene	< 0.5	0.5	
Benzyl Chloride	< 0.08	0.08	1
Bromodichloromethane	< 0.08	0.08	1
Bromoform	< 1	1	·
Bromomethane	< 1	1	
Carbon Disulfide	< 100	100	
Carbon Tetrachloride	< 0.1	0.1	
Chlorobenzene	< 5	5	
Chloroethane	< 5	5	
Chloroform	< 0.17	0.17	
Chloromethane	< 10	10	
cis-1,2-Dichloroethene	< 5	5	
cis-1,3-Dichloropropene	< 1	1	
Cyclohexane	< 1600	1600	
Dibromochloromethane	< 0.1	0.1	
Dichlorodifluoromethane	< 10	10	
Ethyl Acetate	< 15	15	
Ethylbenzene	< 2	2	
Hexachloro-1,3-butadiene	< 0.1	0.1	
Isooctane	< 100	100	
m,p-Xylene	< 10	10	
Methylene Chloride	< 12	12	
Methyl-tert-butyl ether	< 10	10	
N-Heptane	< 100	100	
N-Hexane	< 50	50	
Naphthalene	< 0.1	0.1	
o-Xylene	< 10	10	
Propylene	< 100	100	
Styrene	< 100	100	
Tetrachloroethene	< 0.47	0.47	
Tetrahydrofuran	< 100	100	



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Analytical Report

Method Blank (MB):	MB Results (ppbv)	Reporting Limit (ppbv)	<u>Flags</u>
Toluene	< 1000	1000	
trans-1,2-Dichloroethene	< 10	10	
trans-1,3-Dichloropropene	< 1	1	
Trichloroethene	< 0.2	0.2	
Trichlorofluoromethane	< 100	100	
Vinyl Acetate	< 50	50	
Vinyl Bromide	< 0.1	0.1	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	97%		
Analysis Date/Time:	4-3-24/19:41		
Analyst Initials	tjg		

LCS/LCSD	LCS Results (ppbv)	LCSD Results (ppbv)	LCS/D Conc(ppbv)	Rec.	LCSD Rec.		<u>Flag</u>
Propylene	9.24	9.3	10	92%	93%	0.6%	
Dichlorodifluoromethane	9.96	10	10	100%	100%	0.4%	
Chloromethane	10.1	9.62	10	101%	96%	4.9%	
Vinyl Chloride	9.85	9.5	10	99%	95%	3.6%	
1,3-Butadiene	10.5	8.85	10	105%	89%	17.1%	
Bromomethane	10.6	9.03	10	106%	90%	16.0%	
Chloroethane	9.95	8.65	10	100%	87%	14.0%	
Vinyl Bromide	10.3	9.4	10	103%	94%	9.1%	
Trichlorofluoromethane	10.7	10	10	107%	100%	6.8%	
Acetone	10.3	9.68	10	103%	97%	6.2%	
1,1-Dichloroethene	10.5	10.9	10	105%	109%	3.7%	
Methylene Chloride	10.7	10.3	10	107%	103%	3.8%	
Carbon Disulfide	9.67	10.2	10	97%	102%	5.3%	
trans-1,2-Dichloroethene	10.6	9.87	10	106%	99%	7.1%	
Methyl-tert-butyl ether	10.6	8.8	10	106%	88%	18.6%	
1,1-Dichloroethane	10.1	9.48	10	101%	95%	6.3%	
Vinyl Acetate	10.6	9.58	10	106%	96%	10.1%	
N-Hexane	10.2	10.9	10	102%	109%	6.6%	
2-Butanone (MEK)	9.64	10	10	96%	100%	3.7%	
cis-1,2-Dichloroethene	9.91	10.4	10	99%	104%	4.8%	
Ethyl Acetate	9.97	10.3	10	100%	103%	3.3%	
Chloroform	9.57	10.1	10	96%	101%	5.4%	
Tetrahydrofuran	10.4	9.58	10	104%	96%	8.2%	
1,2-Dichloroethane	9.17	9.66	10	92%	97%	5.2%	
1,1,1-Trichloroethane	9.11	9.13	10	91%	91%	0.2%	
Carbon Tetrachloride	9.69	9.5	10	97%	95%	2.0%	
Benzene	10.1	9.66	10	101%	97%	4.5%	
Cyclohexane	9.39	9.86	10	94%	99%	4.9%	
1,2-Dichloropropane	10.5	9.74	10	105%	97%	7.5%	
Trichloroethene	10.4	10.2	10	104%	102%	1.9%	
Bromodichloromethane	9.75	9.54	10	98%	95%	2.2%	
1,4-Dioxane	9.58	9.44	10	96%	94%	1.5%	
Isooctane	10.2	10.1	10	102%	101%	1.0%	
N-Heptane	10.6	10.3	10	106%	103%	2.9%	
cis-1,3-Dichloropropene	10.1	9.93	10	101%	99%	1.7%	
4-Methyl-2-pentanone (MIBK)	9.78	10.4	10	98%	104%	6.1%	
trans-1,3-Dichloropropene	10.1	9.98	10	101%	100%	1.2%	
1,1,2-Trichloroethane	9.85	9.27	10	99%	93%	6.1%	
Toluene	10.3	10.2	10	103%	102%	1.0%	
2-Hexanone	11	10.9	10	110%	109%	0.9%	
Dibromochloromethane	9.84	10.4	10	98%	104%	5.5%	
1,2-dibromoethane (EDB)	9.08	9.41	10	91%	94%	3.6%	
Tetrachloroethene	9.05	9.47	10	91%	95%	4.5%	
Chlorobenzene	9.48	9.72	10	95%	97%	2.5%	
Ethylbenzene	9.87	10.4	10	99%	104%	5.2%	
m,p-Xylene	20.1	20.9	20	101%	105%	3.9%	
Bromoform	8.55	9.44	10	86%	94%	9.9%	



Analytical Report

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			LCS/D	LCS	LCSD		
LCS/LCSD	LCS Results (ppbv)	LCSD Results (ppbv)	Conc(ppbv)	Rec.	Rec.	<u>RPD</u>	<u>Flag</u>
Styrene	10.7	10.3	10	107%	103%	3.8%	
1,1,2,2-Tetrachloroethane	10.1	9.96	10	101%	100%	1.4%	
o-Xylene	9.73	10.3	10	97%	103%	5.7%	
4-Ethyltoluene	10.6	10.5	10	106%	105%	0.9%	
1,3,5-Trimethylbenzene	10.2	10.3	10	102%	103%	1.0%	
1,2,4-Trimethylbenzene	10.2	9.86	10	102%	99%	3.4%	
1,3-Dichlorobenzene	8.74	9.64	10	87%	96%	9.8%	
Benzyl Chloride	9.16	10.4	10	92%	104%	12.7%	
1,4-Dichlorobenzene	9.63	10.5	10	96%	105%	8.6%	
1,2-Dichlorobenzene	9.73	10.4	10	97%	104%	6.7%	
1,2,4-Trichlorobenzene	9.51	10.1	10	95%	101%	6.0%	
Naphthalene	9.41	10.2	10	94%	102%	8.1%	
Hexachloro-1,3-butadiene	9.58	10.3	10	96%	103%	7.2%	
4-bromofluorobenzene (surrogate)	103%	94%					
Analysis Date/Time:	4-3-24/18:14	4-3-24/18:59					
Analyst Initials	tjg	tjg					



EnvisionAir

1441 Sadlier Circle West Drive Indianapolis, IN 46239 Ph: 317-351-0885 Fax: 317-351-0882 www.envision-air.com

Flag Number

Comments

1

Reporting limit is supported by MDL. TJG

CHAIN OF CUSTODY RECORD

EnvisionAir | 1441Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

Time	re	, Date		Received by:	, Rec	,	Time	Date	٦		by:	Relinquished by:	Relina	
	######################################						and the second description of the second control of the second con					3282	Comments: 841; 4032824	Comi
1007	à	00	250	5220	31512			X 8581	3/28	3	3/28	010	71: A072624 6LC	A
1004	-6	7	The same	05303	15563			X oasy	3/28 1	156	3/28 95		FD1: A032824 6LC	77
1005	-7	-7	7 - 30 05- 4	act to 4048	11074		×	1803	3/28 1	556	3/28	620	54: A03e824	35
1004	-9	9	-30+	08067	10625		×	Wixo >	3/28/	12	3/28	640	3: A032824	: 855
1003	0,6		-29	07309	19625			7757	3/28	947	3/28	970	SSC: A032824	<u>%</u>
1002	Ś	>	-29	04140	200		X	1753	3/28 1	444	3/28	6LC	SS/: A032824	/85
1001	-7		280	25520	11689			1803)	3/28 1	356	3/24	279	ZA4: A032824	TA
1000	-7	-7	-29	07301	4684			1800 >	3/28 1	75	3/28	CC	TA3: 40,2824	ZA
999	-6	4	-29	05308	10346			1736	3/28	947	3/28	K	It-2: A032824	#I
24-998	+	Ł	-29	67435	4834			(281)	3/28	2	3/28	61C	TA1: 4032824	7
EnvisionAir Sample Number	Lab Received (in. Hg)	Final Field (in. Hg)	Initial Field (in. Hg)	Flow Controller Serial#	Canister Serial #			Coll. Time	Coll. Date (Comp. End)	Coll. Time (Grab/Comp Start)	Coll. Date (Gray/Comp	Media Type	Air Sample ID	
	<i>Уасиит</i>	Canister Pressure / Vacuum		Indoor-Air:	70.13		70.15 70.15		= 1 Liter Canister = 6 Liter Canister = Tedlar Bag = Thermal Description Tube	Media type: 1LC = 1 Liter Canister 6LC = 6 Liter Canister TB = Tediar Bag TD = Thermal Desorp		bus. days)	Desired TAT: (Please Circle Ope) 1 day 2 days 3 days Std (5 bus. days)	Desire 1 day
Ĭ	www.envision-air.com	www.env		Soil-Gas: 12 Sub-Slab:		Short	Full Lis	PPMV	eded: (circle	ng Units ne	12	lan Usa L	Invoice Address:	Invoi
		•	ľ		100	ist (Sp.			QA/QC Required: (circle if applicable) Level III (Level IV	Required: Level	QA/QC		Ф.:	Phone
TUVS OUN R			H		16 in			1	noffer	Sampled by: メルの	Sample	Ţ	Report To: Jason Oland	Repo
					notes				60/4	10/11/5760,	1/0	IN	Mobles ville	Address:
,				TERS	ED PARAMETERS	REQUESTED PA	REQ		umber:	Project Name or Number:	Project	7001	t 161 Lake View Dr	Report
!9 of	i,							~ ~	P.O. Number: ///; 1/// 57//5/hg	mber: ///s	P.O. Nu		Client: Tr. Fr// L	Client

29 of 130

30 of 130

CHAIN OF CUSTODY RECORD

EnvisionAir | 1441 Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

1300	1111					\$		1/47			9	There	Jada May
te	,,,,Da		Received by:	Rec	\bigwedge	ie	Time	Date	<u> </u>		by:	<u>√2.</u>	Relina
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3001-4B 4-	4	\$2-	0676	940HB			X	1025	3/18	1028	3/28	150	5606: A032824
Lab EnvisionAir Received Sample Number (in. Hg)	Final Field (in. Hg)	Initial Field (in: Hg)	Flow Controller Serial #	Canister Serial#				Coll. Time	Coll. Date	Coll. Time (Grab/Comp Start)	Coll. Date	Media Type (see code above)	Air Sample ID
Vасиит	Canister Pressure / Vacuum	Canister	Indoor-Air: 🗷			70.15	70.1s		Media type: 1LC = 1 Liter Canister 6LC = 6 Liter Canister TB = Tediar Bag TD = Thermal Desorption Tube	© 1LC = 1 Liter 6LC = 6 Liter TB = Tedlar I TD = Therma		rde Ope Std (5 bus. days)	Desired TAT: (Please Circle One) 1 day 2 days 3 days (5td (5)
www envision-air com	www env		Soil-Gas: Z Sub-Slab: Z		177 L.	Full List		PPMV	Reporting Units needed: (circle)	ing Units n		2. L/2/20 US	Invoice Address: Accounts.pay, 6/2 @2/gause
	4			`	St (Spec)			cable)	QA/QC Required: (circle if applicable) Level III (Level IV)	Required:	QA/QC		Phone:
力とくのうとう				The state of the s	8	\		-1	3 Mother		Sampled by:	pub	Report To: ブタミのハーの
		L		rotes					e or Number: 57 <i>60 </i> /q	Project Name or Number:	Project Name	CHN	Report RILLAKeVIEW DI Address: Nobles 11:11/c, In
30			ERS	PARAMETERS	REQUESTED PA	REQU		100 PO 00	F.O. Nolliber: ///// / 5 / 60 / 1 80	Jilibel: //	7.0.	(0100D)	The E
of									0		2		

2024-187 LEVEL IV



TO-15 VOC

• Sequence Log

Injection Log

	C	Directory:	C:\HPCHEM	\1\DATA\040324	injection Log
Line	Vial	FileName	Multiplier	SampleName	Misc Info Injected
1	1	0101001.D	1.	BFB TUNE	TO-15 ANALYSIS 3 Apr 2024 16:44
2	2	0201002.D	1.	BFB/CCV 10PPBV	TO-15 ANALYSIS 3 Apr 2024 17:29
3	3	0301003.D	1.	LCS 10PPBV	TO-15 ANALYSIS 3 Apr 2024 18:14
4	4	0401004.D	1.	LCSDD 10PPBV	TO-15 ANALYSIS 3 Apr 2024 18:59
5	5	0501005.D	1.	METHOD BLANK	TO-15 ANALYSIS 3 Apr 2024 19:41
6	6	0601006.D	1.	METHOD BLANK	TO-15 ANALYSIS 3 Apr 2024 20:23
7	7	0701001.D	1.	24-1007 OA	TO-15 ANALYSIS 3 Apr 2024 21:00
8 9	8	0701007.D 0801002.D		24-998	TO-15 ANALYSIS 3 Apr 2024 21:43
10	9	0901003.D	1.	24-999	TO-15 ANALYSIS 3 Apr 2024 22:27
11	10	1001004.D	1.	24-1000	TO-15 ANALYSIS 3 Apr 2024 23:11
12	11	1101005.D	1.	24-1002	TO-15 ANALYSIS 3 Apr 2024 23:54
13	12	1201006.D	1,	24-1003	TO-15 ANALYSIS 4 Apr 2024 00:38
14	13	1301007.D	1.	24-1004	TO-15 ANALYSIS 4 Apr 2024 01:22
15	14	1401008.D	1.	24-1001	TO-15 ANALYSIS 4 Apr 2024 02:06
16	15	1501009.D	1.	24-1005	TO-15 ANALYSIS 4 Apr 2024 02:51
17	16	1601010.D	1.	24-1006	TO-15 ANALYSIS 4 Apr 2024 03:37
18	17	1701011.D	1.	LCSDD 10PPBV	TO-15 ANALYSIS 4 Apr 2024 04:24
19	18	1801012.D	1,	24-921:40	TO-15 ANALYSIS 4 Apr 2024 05:02
20	19	1901013.D	1.	24-924:200	TO-15 ANALYSIS 4 Apr 2024 05:43
21	19	1901015.D	1.	24-1008:10	TO-15 ANALYSIS 4 Apr 2024 07:04
22	20	2001014.D	1.	24-931:80	TO-15 ANALYSIS 4 Apr 2024 06:24
23	20	2001016.D	1.	24-985:10	TO-15 ANALYSIS 4 Apr 2024 07:45
24	21	2101017.D	1.	24-986:10	TO-15 ANALYSIS 4 Apr 2024 08:25
25	22	2201018.D	1.	24-987:10	TO-15 ANALYSIS 4 Apr 2024 09:05
26	23	2301019.D	1.	LCSDD 10PPBV	TO-15 ANALYSIS 4 Apr 2024 09:46
27	24	2401020.D	1.	CSI	TO-15 ANALYSIS 4 Apr 2024 10:31
28	25	2501021.D		CSI	TO-15 ANALYSIS 4 Apr 2024 11:10
29	26	2601001.D	1.	24-988:10	TO-15 ANALYSIS 4 Apr 2024 11:58

12 Apr 2024 08:27130

Injection Log

C:\HPCHEM\1\DATA\040324

Directory:

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
30 31	27	2601022.D 2701002.D	1. 1.	24-989:10	TO-15 ANALYSIS	4 Apr 2024 12:39
32	28	2801003.D	1.	24-1009:10	TO-15 ANALYSIS	4 Apr 2024 13:19
33	29	2901004.D	1.	24-1010:10	TO-15 ANALYSIS	4 Apr 2024 13:59
34	30	3001005.D	1.	24-1011:10	TO-15 ANALYSIS	4 Apr 2024 14:41
35	31	3101006.D	1.	24-1012:10	TO-15 ANALYSIS	4 Apr 2024 15:26
36	32	3201007.D	1.	24-1013:10	TO-15 ANALYSIS	4 Apr 2024 16:11
37	33	3301008.D	1.	24-1014:10	TO-15 ANALYSIS	4 Apr 2024 16:54
38	34	3401009.D	1.	LCSDD 10PPBV	TO-15 ANALYSIS	4 Apr 2024 17:39

ENVISIONAIR

TO-15 VOC Initial Calibration Data

- Tune
- Initial Calibration Summary
- Initial Calibration Quant Reports
- Initial Calibration
 Verification Summary

				Injection Log		
	D	irectory:	C:\HPCHEM\	1\DATA\031424C		
Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0101001.D	1.	24-706;40 D	TO-15 ANALYSIS	14 Mar 2024 09:20
2	2	0201002.D	1.	10PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 10:04
3	3	0301003.D	1.	0.1PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 10:52
4	4	0401004.D	1.	0.2PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 11:34
5	5	0501005,D	1.	0.5PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 12:17
6	6	0601006.D	1.	1PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 13:04
7	7	0701007.D	1.	1PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 13:46
8	8	0801008,D	1.	2PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 14:28
9	9	0901009.D	1.	5PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 15:12
10	10	1001010.D	1,	10PPBV TO-15 ICAL	TO-15 ANALYSIS	
11	11	1101011.D	1.	20PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 15:57
12	12	1201012.D	1.	10PPBV TO-15 ICAL VER	TO-15 ANALYSIS	14 Mar 2024 16:46
13	13	1301013.D	1.	LCS 10PPBV	TO-15 ANALYSIS	14 Mar 2024 17:30
14	14	1401014.D	1.	LCSD 10PPBV	TO-15 ANALYSIS	14 Mar 2024 18:14 14 Mar 2024 18:58
15	15	1501015.D	1.	METHOD BLANK	TO-15 ANALYSIS	14 Mar 2024 19:40
16	16	1601016.D	1.	CSI-2539	TO-15 ANALYSIS	14 Mar 2024 19:40
17	17	1701017.D	1.	24-726:10	TO-15 ANALYSIS	14 Mar 2024 20:22
18	18	1801018.D	1.	24-727:10	TO-15 ANALYSIS	14 Mar 2024 21:46
19	19	1901019.D	1,	24-728:10	TO-15 ANALYSIS	14 Mar 2024 22:28
20	20	2001020.D	1.	24-729:10	TO-15 ANALYSIS	
21	21	2101021.D		24-730;10	TO-15 ANALYSIS	14 Mar 2024 23:11
22	22	2201022.D		24-731:10	TO-15 ANALYSIS	14 Mar 2024 23:53
23	23	2301023,D		24-739:10	TO-15 ANALYSIS	15 Mar 2024 00:35
						45 Mar 2024 01:17

28 Mar 2024 06:21

TO-15 ANALYSIS

TO-15 ANALYSIS

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TO-15 ANALYSIS

TO-15 ANALYSIS

2401024.D

2501025.D

2601026.D

2701027.D

2801028.D

2901029.D

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24-738:10

24-737:10

24-736:10

24-726:40

24-727:40

LCSDD 10PPBV

15 Mar 2024 01:17

15 Mar 2024 01:58

15 Mar 2024 02:40

15 Mar 2024 03;21

15 Mar 2024 04:05

15 Mar 2024 04:46

15 Mar 2024 05:27

Method : C:\HPCHEM\1\METHODS\031424AI,M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration

Calibration Files
10 =1001010.D
2 =0801008.D 0.1 =0301003.D 5 =0901009.D 1 =0701007.D 0.5 =0501005.D

4		• • • •					_		N-D-G-D
	Compound	10	0,1	5 	2	1	0,5	Avg	%RSD
1) T	Bromochloromethane (I			·ISTD		0 207	0 372	- 11,70
2) T	Propylene	0,355	0,405	0.379	0,428	2 606	2 354	2 758	9,00
3) T	Dichlorodifluoromet	0 720	0 643	0,645	0.657	0.748	0.768	0.724	9 91
4} T 5} T	Chloromethane Vinyl Chloride	0.720	0.729	0,926	0.867	0.916	1.042	0.877	10.79
6) T	1,3-Butadiene	0.519	0.517	0,519	0.474	0.409	0.490	0,486	8,60
7) T	Bromomethane	1.119	0,973	1,217	1,028	0.940	0.948	1.041	9.05
8) T	Chloroethane	0.421	0,433	0,425	0.442	0,481	0.418	0.444	5,55 9,05
9) T	Vinyl Bromide Trichlorofluorometh	0.947	1.149	1,002	0,943	7,030	2 452	2.522	9.70
10) T 11) T	Acetone	1 403	1 810	1.468	1.454	1.619	1.584	1.631	12.72
11) T 12)	Isopropyl Alcohol (1.234	1.114	1,125	1,173	1.382	0.847	1.155	13,13
13)	1,1-Dichlorcethene	1.543	1.746	1,562	1,325	1,443	1.393	1.474	9.24
14) T	Methylene Chloride	0.915	1.087	0.929	0.810	0.823	0.654	0.858	14.53 9.84
15) T	Carbon Disulfide	2,958	2.737	3.032	2.769	2.579	0 942	2.733	9.08
16) T	trans-1,2-Dichloroe Methyl-tert-butyl e	2 677	3 036	2 589	2 382	2 472	2.727	2.659	7.36
17) T 18) T	1.1-Dichloroethane	1.644	1.655	1,750	1,418	1 688	1,581	1.686	9.16
19) T	Vinyl Acetate	1.991	2.036	1,809	1,925	1,810	1,548	1,908	9.69
20) T	N-Hexane	0.938	0.879	0,999	1,062	1.056	1,116	1,042	12,00
21) T	2-Butanone (MEK)	1.173	1.050	1,303	1,264	1.346	1.090	1,233	9.40 8.95
22) T	cis-1,2-Dichloroeth	1,215	0,997	1,297	1,055	1,057	1 420	1.107	7,82
23) T 24) T	Ethyl Acetate Chloroform	2 327	2 247	2,501	2.153	2.029	1.907	2.163	8,78
24) T	•								
25) T	1,4-Difluorobenzene	(-ISTD-				- 0 66
26) T	Tetrahydrofuran	0,188	0.188	0,171	0,169	0.199	0.227	0.193	9,66 5,70
27) T	1,2-Dichloroethane 1,1,1-Trichloroetha	0.368	0,365	0,398	0.375	0,366 0.588	0,301	0.304 0.578	6,85
28) T 29) T	1,1-Trichloroetha 1,1-Dichloropropene	0.550	0.478	0.379	0.374	0.393	0.471	0.410	10,92
30) T	Carbon Tetrachlorid	0.550	0.633	0.537	0.493	0,458	0.542	0.542	10,20
31) T	Benzene	0.595	0,537	0.601	0.555	0.520	0.649	0.592	8,45
32) T	Cyclohexane	0,360	0,468	0.353	0,376	0.428	0.319	0.379	13,25
33) T	1,2-Dichloropropane	0,183	0.214	0.303	0.170	0.161	0.101	0.100	10,21 6,89
34) T 35) T	Trichloroethene Bromodichloromethan	0.300	0.313	0.303	0.478	0.518	0.544	0.533	5,60
35) T 36) T	1,4-Dioxane	0.149	0.160	0.126	0,135	0.149	0.150	0.151	10,39
37) T	Isooctane	0.763	0.932	0.744	0.816	0,629	0.720	0.793	13,85
38) T	N-Heptane	0.262	0.264	0.262	0.228	0.207	0,218	0,250	11,84
39) T	cis-1,3-Dichloropro	0.320	0.279	0.324	0.326	0.338	0,386	0,337	11.49 13.34
40) T	4-Methyl-2-Penanone trans-1,3-Dichlorop	0,378	0,270	0,300 0 379	0,340	0.204	0.319	0.351	11,34
41) T 42) T	1,1,2-Trichloroetha	0.300	0.256	0.214	0.202	0.193	0.227	0.226	12.73
43) T	Toluene	0.655	0,620	0.698	0.639	0.494	0,595	0,612	9.69
44) T	2-Hexanone	0.350	0.415	0.318	0.349	0,358	0.364	0.372	11.59
45 \ 7	Chlorobenzene-d5 (IS	a١			I CTT				
45) I 46) T	Dibromochloromethan	5) 0 591	0 618	0.603	0.499	0.458	0,481	0.543	11,03
47) T	1,2-Dibromoethane (0.543	0.431	0.533	0.565	0.577	0.528	0.521	9,04
48) T	Tetrachloroethene	0,503	0.579	0,482	0.488	0.492	0.417	0,488	9,29
49) T	Chlorobenzene	0.738	0.714	0.737	0,682	0.581	0,656	0,671	8.93
50) T	Ethylbenzene	0.994	0.759	1.089	0,923	1,019	0,973	0,986	11,40 8,53
51) T	m.p-Xylene	0,967	0,882	0.940	0,889	0.610	0.793	0.622	9,88
52) T 53) T	Bromoform Styrene	0.653	0.717	0.565	0.487	0.505	0.451	0.529	9,32
54) T	1,1,2,2-Tetrachloro	0.658	0.611	0.668	0,632	0,603	0,533	0.610	8.17
55) T	o-Xvlene	0,443	0.394	0.439	0,411	0.376	0,378	0.405	6,31
56) S	4-Bromofluorobenzen	0,778	0.688	0.750	0,733	0.702	0.751	0,723	4.91
57) T	4-Ethyltoluene	1,179	1,065	1,156	1,067	U,956	0.950 0.950	1,060	9.39 9.04
58) T 59) T	1,3,5-Trimethylbenz 1,2,4-Trimethylbenz	ገ.ሀሀ1 በ ዓፋን	0.937	0.907	0,827	0,773	0.020	0.888	8,68
60) T	1,3-Dichlorobenzene	0,666	0,666	0.636	0,555	0.467	0.647	0.608	12,68
61) T	Benzvl Chloride	0.847	0.730	0.824	0.705	0,666	0.852	0.773	9.46
62) T	1.4-Dichlorobenzene	0.354	0,391	0.334	0.334	0.273	0.355	0,336	10.59
63) T	1,2-Dichlorobenzene	0.625	0.513	0,642	0.540	0.482	0.542	0.561	10.86 13.05
64) T	1,2,4-Trichlorobenz	0.083	U. UY2	0.079	0.092	υ, ψοδ	0.060	0.004	13,03

65) Naphthalene 0.099 0.094 0.100 0.090 0.095 0.098 0.100 8.98 66) T Hexachloro-1,3-buta 0.212 0.165 0.219 0.205 0.247 0.208 0.206 12.42

(#) = Out of Range ### Number of calibration levels exceeded format ###

031424AI.M

Thu Mar 28 06:22:00 2024 6890

Data File : C:\HPCHEM\1\DATA\031424C\0201002.D

: 14 Mar 2024 10:04 am : 10PPBV TO-15 ICAL Acq On

Sample Misc

TO-15 ANALYSIS

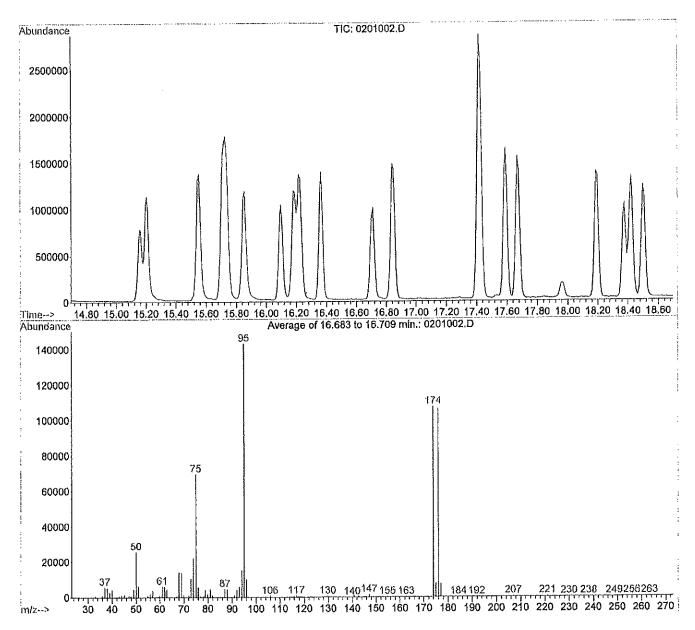
Vial: 2 Operator: TJG

: GC/MS Ins Inst

Multiplr: 1,00

MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator) Method

: Method TO-15 CALIBRATION Title



Spectrum Information: Average of 16,683 to 16,709 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
1 50	1 95	15	40	17.9	25582	PASS
75	i 95	30	i 60 i	48.5	69334	PASS
95	95	100	i 100 i	100.0	142962	PASS
96	i 95	2	j 9 i	7.0	10022	PASS
173	174	0.00	i 2 i	0.1	j 63	PASS
174	95	50	100 i	75.0	107200	PASS
175	174	5	9	7.2	j 7699	PASS
176	174	95	101	98.9	j 106052	PASS
177	176	5	9	7.2	7644	PASS

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0301003.D Acq On : 14 Mar 2024 10:52 am Sample : 0.1PPBV TO-15 ICAL

Vial: 3 Operator: TJG Inst : GC/MS Ins

: TO-15 ANALYSIS Misc

Multiplr: 1.00

MS Integration Params: rteint.p Quant Time: Mar 15 4:39 2024

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI,M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 14:20:21 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

nternal Standards	R.T.			Conc Units I		Min)
1) Bromochloromethane (IS)	9,28	128	91153	5,00 ppbv		0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	394904	2,00 ppuv		0,00
45) Chlorobenzene-d5 (IS)	15.15	117	349029	5,00 ppbv		0.00
ystem Monitoring Compounds	16 70	0.5	222766	7.40 ppbv		0.00
56) 4-Bromofluorobenzene (SURR Spiked Amount 5,000 Ran	16,70 ge 62	- 145		y = 148.1	00%#	#
arget Compounds					Qva	alue
2) Propylene	4,26	39	1139	0.14 ppbv		
3) Dichlorodifluoromethane	4.34	85	4682	0.11 ppbv		
4) Chloromethane	4,58	50		0,14 ppbv		
5) Vinyl Chloride	4.87	62		0.12 ppbv 0.11 ppbv		
6) 1.3-Butadiene	5.03	39		0.11 ppbv		
7) Bromomethane	5.38	94		0.15 ppbv		
8) Chloroethane	5,60	64 106	594	0.13 pp5v	#	5
9) Vinyl Bromide	6.01 6.47	101	4631	0.04 ppbv 0.12 ppbv	#	5
10) Trichlorofluoromethane	6,20	43				
11) Acetone	6,42	45		0.06 ppbv	#	5
12) Isopropyl Alcohol (IPA) 13) 1,1-Dichloroethene	7.11		3483	0.13 ppbv		
14) Methylene Chloride	7.24			0.12 ppbv		
15) Carbon Disulfide	7,61			0.07 ppbv	#	10
16) trans-1,2-Dichloroethene	8 13		941	0.07 ppbv 0.05 ppbv	Ħ	8
17) Methyl-tert-butyl ether	8,32		5434	0 13 ppbv 0 10 ppbv		
18) 1,1-Dichloroethane	8,32		3017	0.10 ppbv		
19) Vinyl Acetate	8.38	43	4712	0.11 ppbv		
20) N-Hexane	9,28	57		0.09 ppbv		
21) 2-Butanone (MEK)	8,63	43	2914	0.09 ppbv		
22) cis-1,2-Dichloroethene	9.10	61	1817	0.07 ppbv		
23) Ethyl Acetate	9,22	43	1181	0.04 ppbv		•
24) Chloroform	9,37	83	3097	0,09 ppbv		
26) Tetrahydrofuran	9,82	42	1787m	0.10 ppbv		
27) 1.2-Dichloroethane	10.07	62	2102	0.08 ppbv		
28) 1,1,1-Trichloroethane	10.34	97		0.06 ppbv 0.14 ppbv		
29) 1,1-Dichloropropene	12.94		4006	0,14 ppbv	, "	
30) Carbon Tetrachloride	10.91		4206 4239	0,11 ppbv	,	
31) Benzene	10.77			0.10 ppbv		
32) Cyclohexane	11,00					
33) 1,2-Dichloropropane	11.49 11.71			0.12 ppbv		
34) Trichloroethene	11.71		3489m			
35) Bromodichloromethane	11.65			0,08 ppbv		
36) 1,4-Dioxane 37) Isooctane	11.75		6360	0.09 ppby		
38) N-Heptane	11.93	43	2189	0,09 ppby		
39) cis-1,3-Dichloropropene	12.48		3754	0.13 ppbv		
40) 4-Methyl-2-Penanone (MIBK)	12.45	43	4131	0,12 ppbv	,	
41) trans-1,3-Dichloropropene	12.94		4006	0.12 ppby	, #	
42) 1,1,2-Trichloroethane	13,13	83	2020	0.11 ppbv	7	
43) Toluene	13.44	91	5199	0.10 ppb		
44) 2-Hexanone	13.63	43	3280	0.10 ppb\	7	
46) Dibromochloromethane	13,85	129	2717	0,08 ppbv		
47) 1,2-Dibromoethane (EDB)	14.11	107	4529m	0.12 ppb		
48) Tetrachloroethene	14.55	166	3343	0.10 ppb		
49) Chlorobenzene	15.19	112	4385	0.09 ppby	/ #	
50) Ethylbenzene	15.55	91	4399	0.05 ppb\		
51) m,p-Xylene	15,71		13315	0,24 ppby		
52) Bromoform	15.85		5257	0.13 ppby		
53) Styrene	16,09	104	4465m	0,10 ppb\	/	

^{(#) =} qualifier out of range (m) = manual integration 0301003,D 031424AI,M Thu Mar 28 06:22:23 2024

6890

Data File : C:\HPCHEM\1\DATA\031424C\0301003.D Acq On : 14 Mar 2024 10:52 am Sample : 0.1PPBV TO-15 ICAL

TO-15 ANALYSIS

MS Integration Params: rteint.p Quant Time: Mar 15 4:39 2024

Vial: 3 Operator: TJG Inst : GC/MS Ins

Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI,M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 14:20:21 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Misc

Compound	R.T. QI	on Response	Conc Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane 55) o-Xylene 57) 4-Ethyltoluene 58) 1,3,5-Trimethylbenzene 59) 1,2,4-Trimethylbenzene 60) 1,3-Dichlorobenzene 61) Benzyl Chloride 62) 1,4-Dichlorobenzene 63) 1,2-Dichlorobenzene 64) 1,2,4-Trichlorobenzene 65) Naphthalene 66) Hexachloro-1,3-butadiene	16.22 1 17.59 1 17.66 1 18.19 1 18.41 1 18.38 18.50 1 18.96 1 21.54 1	83 6767 06 2847 05 12431 05 9542 05 8623 46 6650 91 8094 48 2431 46 5781 180 1039 766m 225 2955	0.12 ppbv 0.09 ppbv 0.15 ppbv 0.14 ppbv 0.12 ppbv 0.15 ppbv 0.13 ppbv 0.11 ppbv 0.15 ppbv 0.14 ppbv 0.11 ppbv	# 79 # 93

40 of 130

Page

2024

06:22:24

Mar

Thu

031424AI.M

0301003.D

41 of 130

22,00

21.00

T,eneibstud-6,1-onotriosxeH

T,enaxnadoroldohT-A,S,) anaiad/iqaM

Data File : C:\HPCHEM\1\DATA\031424C\0401004.D

Vial: 4 Operator: TJG Inst : GC/MS Ins

: 14 Mar 2024 11:34 am : 0.2PPBV TO-15 ICAL Acq On Sample Multiplr: 1.00 TO-15 ANALYSIS

Misc MS Integration Params; rteint p Quant Time: Mar 15 4:40 2024

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 14:17:25 2024 Response via : Initial Calibration

DataAcq Meth : ENTECH1

DataAcq Meth . ENIECHI							
Internal Standards	R.T.	QIon	Response	Conc Un	its De	e∨(Min)
1) Bromochloromethane (IS)	9,27	128	110409	5,00	ppbv		0,00
25) 1.4-Difluorobenzene (IS)	11.02	114 117	349238	5.00	ppbv		0,00
45) Chlorobenzene-d5 (IS)	15.16	117	537189	5,00	ppbv		0,00
45) Chioropenzene-do (15)	10110	/					
System Monitoring Compounds		٥.5	381855	6 02	nnhv		0.00
56) 4-Bromofluorobenzene (SURR	16.70	95		y =	120 A		0,00
Spiked Amount 5,000 Ran	ge 62	- 145	Kecover	У —	120.7	0.0	
Target Compounds						Qva	lue
2) Propylene	4.24	39	2058	0.19	bbpA		
3) Dichlorodifluoromethane	4.33	85	10160	0,18			
4) Chloromethane	4.61	50	3320	0.13	vagg		
5) Vinyl Chloride	4.89	62	3390	0.15			
6) 1,3-Butadiene	5.02	39	1955	0,17			
7) Bromomethane	5,39		3934	0.18			
8) Chloroethane	5,59		2097	0,18		ш.	82
9) Vinyl Bromide	6.01	106	3136 8499	0.15	ppbv	#	0 2
10) Trichlorofluoromethane	6,48				bbov		
11) Acetone	6.21		8938	0.27			
12) Isopropyl Alcohol (IPA)	6,44		5726	0,18	pppv	44	40
13) 1,1-Dichloroethene	7.12		6182 3564	0.17	ppbv	#	82
14) Methylene Chloride	7,21			0.16	ppbv	#	0.4
15) Carbon Disulfide	7.61		8568	0,13			
16) trans-1,2-Dichloroethene	8.14		3870	0.16	bbpv	ш	70
17) Methyl-tert-butyl ether	8,34		11743		ppbv		78 75
18) 1,1-Dichloroethane	8,33				bbpA	H	96
19) Vinyl Acetate	8,38		7498		ppbv	ш	82
20) N-Hexane	9.31		2702		ppbv	H	95
21) 2-Butanone (MEK)	8,64		4999		ppbv		92
22) cis-1,2-Dichloroethene	9.12		4645		ppbv	14	61
23) Ethyl Acetate	9,23		2939		ppbv		94
24) Chloroform	9.38		8975		ppbv	#	24
26) Tetrahydrofuran	9.75		436611		ppbv		
27) 1,2-Dichloroethane	10.08			0,41	ppbv	#	82
28) 1,1,1-Trichloroethane	10,34			0.28	ppbv	#	80
29) 1.1-Dichloropropene	12.94		6390		ppbv	**	98
30) Carbon Tetrachloride	10.93		6900		ppbv		92
31) Benzene	10.76				ppbv		20
32) Cyclohexane	11.01		6622		ppbv		
33) 1,2-Dichloropropane	11.5				ppbv		
34) Trichloroethene	11.77			0.13	ppbv ppbv	#	95
35) Bromodichloromethane	11.60			0,17	bbpA	п	, ,
36) 1,4-Dioxane	11,6		4303				
37) Isooctane	11.74				ppbv		
38) N-Heptane	11.9	4 43	4925	0,20	ppbv	H	65
39) cis-1.3-Dichloropropene	12.4			0,19	ppbv	п	
40) 4-Methyl-2-Penanone (MIBK)	12.40	_	6197		bbpA		
41) trans-1,3-Dichloropropene	12.9				bbpA		99
42) 1,1,2-Trichloroethane	13.1				ppbv	н	91
43) Toluene	13.4						
44) 2-Hexanone	13.6				ppbv		80
46) Dibromochloromethane	13.8	_		0.70	ppbv	Π H	92
47) 1,2-Dibromoethane (EDB)	14.1				bbpa		94
48) Tetrachloroethene	14.5						90
49) Chlorobenzene	15.2				ppbv ppbv		98
50) Ethylbenzene	15.5						93
51) m,p-Xylene	15.7				ppbv		98
52) Bromoform	15.8				ppbv ppbv		97
53) Styrene	16.1	0 104	12644	U, 17			
			ntegration				

^{(#) =} qualifier out of range (m) = manual integrationThu Mar 28 06:22:34 2024 0401004.D 031424AI.M

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Data File: C:\HPCHEM\1\DATA\031424C\0401004.D
Acq On: 14 Mar 2024 11:34 am
Sample: 0.2PPBV TO-15 ICAL
Misc: TO-15 ANALYSIS

Vial: 4
Operator: TJG
Inst : GC/MS Ins Multiplr: 1,00

MS Integration Params: rteint.p Quant Time: Mar 15 4:40 2024

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 14:17:25 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T,	QIon	Response	Conc Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane 55) o-Xylene 57) 4-Ethyltoluene 58) 1,3,5-Trimethylbenzene 59) 1,2,4-Trimethylbenzene 60) 1,3-Dichlorobenzene 61) Benzyl Chloride 62) 1,4-Dichlorobenzene 63) 1,2-Dichlorobenzene 64) 1,2,4-Trichlorobenzene 65) Naphthalene 66) Hexachloro-1,3-butadiene	16.18 16.23 17.58 17.67 18.19 18.42 18.37 18.51 18.97 21,52 21.75 22.28	83 106 105 105 105 146 91 148 146 180 128 225	11634 6388 26335 20055 20055 20634 14710 17818 6512 13454 2023 1975 5780	0.12 ppbv 0.12 ppbv 0.20 ppbv 0.19 ppbv 0.19 ppbv 0.12 ppbv 0.18 ppbv 0.19 ppbv 0.23 ppbv 0.21 ppbv 0.18 ppbv 0.16 ppbv	87 93 # 88 93 97 # 93

Vial:

C: \HPCHEM\1\DATA\031424C\0401004.D

Data File

Sample : 0.2PPBV TO-15 ICAL Misc : TO-15 ANALYSIS MS Integration Params: rteint.p Quant Time: Mar 15 4:40 2024

Quant Time: Mar 15

Method Title

031424AI.RES

Results File:

Quant

GC/MS

Operator: Inst : Multiplr:

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Method TO-15 CALIBRATION
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Vial: 5 Operator: TJG Inst : GC/MS Ins Data File: C:\HPCHEM\1\DATA\031424C\0501005.D
Acq On: 14 Mar 2024 12:17 pm
Sample: 0.5PPBV TO-15 ICAL
Misc: TO-15 ANALYSIS

Multiplr: 1.00 MS Integration Params: rteint.p Quant Time: Mar 14 14:17 2024 Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI,M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 07 12:12:11 2024
Response Vala : Initial Calibration

DataAcq	Meth	:	ENTECH1
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Internal Standards	R.T.	OIon	Response	Cond Units Dev(Min)
	9.28	128	£20060	5.00 ppbv 0.00 5.00 ppbv 0.00
25) 1,4-Difluorobenzene (IS)	11,02		515570	5.00 ppby 0.00
45) Chlorobenzene-d5 (IS)	15,16	7.1	313310	
System Monitoring Compounds		٥r	207277	6.72 ppbv 0,00
56) 4-Bromofluorobenzene (SURR	16,71	95		ry = 134.40%
Spiked Amount 5,000 Ran	ge 62	- 145	Recove.	
Target Compounds				Qvalue 0 27 ppby # 28
2) Propylene	4,23	39	4838	0.27 ppbv # 28 0.32 ppbv # 84
 Dichlorodifluoromethane 	4,35	85	27397 8531	0,32 ppbv " 01 0,22 ppbv 94
4) Chloromethane	4,60	50 62	7007	0.19 ppbv
5) Vinyl Chloride	4.87 5.03	39	5991	0,33 ppbv
6) 1,3-Butadiene	5,41	94	9465	0.27 ppbv # 75
7) Bromomethane	5.60	64	3815	0.20 ppbv # 70
8) Chloroethane	6,01	106	8203	0,26 ppbv # 60
9) Vinyl Bromide 10) Trichlorofluoromethane	6.47	101	26238	0,34 ppbv # 62
11) Acetone	6.22	43	19841	0.39 ppby # 84
12) Isopropyl Alcohol (IPA)	6.41	45	13814	0.27 ppbv 94
13) 1.1-Dichloroethene	7.13	61	13527	0.24 ppbv # 76
14) Methylene Chloride	7.22	84	10673	0.32 ppbv # 73
15) Carbon Disulfide	7.61	76	20900	0,20 ppbv # 100 0,25 ppbv # 10
16) trans-1,2-Dichloroethene	8,15	96	9363	Oldo Providence
17) Methyl-tert-butyl ether	8,34	73	22480	O'L' PE "
18) 1,1-Dichloroethane	8,33		14785	0.23 ppbv 95 0.17 ppbv # 86
19) Vinyl Acetate	8,39		15257 9199	0 24 ppbv # 77
20) N-Hexane	9,31		11677	0.16 ppbv # 63
21) 2-Butanone (MEK)	8,63 9,13		11731	0.20 ppbv # 76
22) cis-1,2-Dichloroethene	9,13		13164	0.23 ppbv # 87
23) Ethyl Acetate	9,39		21113	0,32 ppbv 92
24) Chloroform	9,75		5967	0.15 ppbv # 57
26) Tetrahydrofuran 27) 1,2-Dichloroethane	10,09		14098	0.30 ppbv # 80
28) 1,1,1-Trichloroethane	10,35		20873	0.36 ppbv # 90
29) 1,1-Dichloropropene	12,95		17026	0,31 ppbv 98
30) Carbon Tetrachloride	10,91	117	20851	0.30 ppbv 99
31) Benzene	10,77		22792	0.29 ppbv 97
32) Cyclohexane	11.01			
33) 1,2-Dichloropropane	11.51	63	6938	Aim. Ett. "
34) Trichloroethene	11.72	95	11639	The state of the s
35) Bromodichloromethane	11.67	83	ZU143	vivo Fr-
36) 1,4-Dioxane	11.66		5906	0.18 ppbv " 99
37) Isooctane	11.75		27468 8369	0.17 ppbv # 85
38) N-Heptane	11.95		13439	0.23 ppbv 93
39) cis-1,3-Dichloropropene	12.48 12.47		14136	0,20 ppby # 97
40) 4-Methyl-2-Penanone (MIBK)	12,95		17026	0.25 ppbv 96
41) trans-1.3-Dichloropropene 42) 1.1.2-Trichloroethane	13,15		8935	0.26 ppbv 88
43) Toluene	13,45		25197	0.25 ppbv 97
44) 2-Hexanone	13,59		13961m	0.22 ppbv
46) Dibromochloromethane	13.85	.	15793	0.28 ppbv 90
47) 1,2-Dibromoethane (EDB)	14.11		14202	0.21 ppbv 83
48) Tetrachloroethene	14.54		19499	0,36 ppbv 87
49) Chlorobenzene	15.23		24834	0.31 ppbv 92
50) Ethylbenzene	15,55		42172	0.30 ppbv # 95
51) m,p-Xylene	15.73		61664	0,65 ppbv 99
52) Bromoform	15,85		20029 23257	0.32 ppbv # 91 0.31 ppbv 98
	16,10	104		0.31 ppbv 98

^{(#) =} qualifier out of range (m) = manual integration 0501005.D 031424AI.M Thu Mar 28 06:22:44 2024

6890

Data File : C:\HPCHEM\1\DATA\031424C\0501005.D Acq On : 14 Mar 2024 12:17 pm Sample : 0.5PPBV TO-15 ICAL Misc : TO-15 ANALYSIS

Vial: 5 Operator: TJG Inst : GC/MS Ins

Multiplr: 1.00

MS Integration Params: rteint.p Quant Time: Mar 14 14:17 2024

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION

Last Update : Thu Mar 07 12:12:11 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T. QI	on Response	Conc Unit	Qvalue	
54) 1,1,2,2-Tetrachloroethane 55) o-Xylene 57) 4-Ethyltoluene 58) 1,3,5-Trimethylbenzene 59) 1,2,4-Trimethylbenzene 60) 1,3-Dichlorobenzene 61) Benzyl Chloride 62) 1,4-Dichlorobenzene 63) 1,2-Dichlorobenzene 64) 1,2,4-Trichlorobenzene 65) Naphthalene 66) Hexachloro-1,3-butadiene	16.23 10 17.60 10 17.67 10 18.20 10 18.43 1 18.38 18.51 1 18.97 1 21.55 1 21.76 1	83 27477 06 15510 05 48985 05 42713 05 47250 46 33362 91 43952 48 16799 46 27957 80 3069 28 1934m 25 10708m	0.28 ppbv 0.30 ppbv 0.37 ppbv 0.40 ppbv 0.44 ppbv 0.50 ppbv 0.53 ppbv 0.53 ppbv 0.49 ppbv 0.32 ppbv 0.17 ppbv 0.30 ppbv	99 98 91 98 94 99	

Vial: 5 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

Data File: C:\HPCHEM\INDATA\031424C\0501005.D
Acq On: 14 Mar 2024 12:17 pm
Sample: 0.5PPBV TO-15 ICAL
Misc: TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 14 14:17 2024

Quant Results File: 031424AI.RES

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Vial: 7 Operator: TJG Inst : GC/MS Ins Data File: C:\HPCHEM\1\DATA\031424C\0701007.D
Acq On: 14 Mar 2024 1:46 pm
Sample: 1PPBV TO-15 ICAL
Misc: TO-15 ANALYSIS

MS Integration Params: rteint.p Quant Time: Mar 15 4:20 2024

Multiplr: 1.00 Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI,M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 14:22:54 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

nternal Standards	R.T. Ç	Ion		Conc Units Dev(Min)
1) Bromochloromethane (IS)		128	136574	5.00 ppbv 0.00 5.00 ppbv 0.00
25) 1,4-Difluorobenzene (IS)	11,03	114	602395	5.00 ppbv 0.01
45) Chlorobenzene-d5 (IS)	15.17	117	496235	5,00 pppv 0,01
ystem Monitoring Compounds	16 71	9.5	348227	5,23 ppbv 0,00
56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ran	ge 62 -	- 145	Recove:	ry = 104,60%
				Qvalue
Carget Compounds 2) Propylene	4,24	39	8922	0.76 ppbv # 53
3) Dichlorodifluoromethane	4,35	85	65184	1.12 ppbv # 71
4) Chloromethane	4.61	50	18443m	0.80 ppbv 0.82 ppbv # 78
5) Vinyl Chloride	4.88	62	18218	0,82 ppbv # 78 0,94 ppbv # 59
6) 1,3-Butadiene	5.05	39	11172	1,05 ppbv # 90
7) Bromomethane	5.41	94	25685 7136	T100 PF-1
8) Chloroethane	5,61	64		0.99 ppbv # 94
9) Vinvl Bromide	6.02	106	21124 64013	1,13 ppbv # 98
10) Trichlorofluoromethane	6,49	101	34223	0 79 ppbv # 95
11) Acetone	6.23	43 45	31141	1.00 ppbv # 79
12) Isopropyl Alcohol (IPA)	6,43	61	34420	0.96 ppbv 93
13) 1,1-Dichloroethene	7.14 7.23	84	22473	0,93 ppbv 9
14) Methylene Chloride	7.23	76	65448	1,00 ppbv # 100
15) Carbon Disulfide	8,16	96	24519	1 00 ppbv 9
16) trans-1,2-Dichloroethene	8,35	73	57526	
17) Methyl-tert-butyl ether	8,34	63	39100	O:
18) 1.1-Dichloroethane	8.39	43	49427m	
19) Vinyl Acetate	9,31	57	18849	0.82 ppbv 9
20) N-Hexane	8,65	43	30905	0.74 ppbv 9
21) 2-Butanone (MEK)	9,12	61	28877	0.82 ppbv 9
22) cis-1,2-Dichloroethene	9,23	43	31356	0.85 ppbv # 9
23) Ethyl Acetate	9.38	83	55425	1.16 ppbv 9
24) Chloroform	9,75	42	14024	0.58 ppbv # 8
26) Tetrahydrofuran 27) 1,2-Dichloroethane	10.09	62	34054	0.92 ppbv 9
28) 1.1.1-Trichloroethane	10.36	97	44808	0,97 ppbv 9
29) 1,1-Dichloropropene	12.95	75	32377	0.74 ppbv 9
30) Carbon Tetrachloride	10,92	117	45137	0.86 ppbv 9
31) Benzene	10.77	78	52598	0.87 ppbv 9
32) Cyclohexane	11.04	56	31606	0.59 ppbv # 6
33) 1.2-Dichloropropane	11,52	63		0.56 ppbv # 9
34) Trichloroethene	11.73	95		A A A A E E E
35) Bromodichloromethane	11,67	83		0 0 PP - 1
36) 1,4-Dioxane	11.65	88	13184	0100 FF - 1
37) Isooctane	11.76	57	59776	AIAB LL
38) N-Heptane	11.94	43	20975	olo: PF.
39) cis-1,3-Dichloropropene	12,48	75	30700	Ott PpD.
40) 4-Methyl-2-Penanone (MIBK)	12.48	43	34190	O,OS FF-
41) trans-1,3-Dichlorоргорөпө	12.95	75	32377	Olos PP-
42) 1,1,2-Trichloroethane	13,16	83	19271	0.77 ppbv 9 0.83 ppbv 9
43) Toluene	13,45	91	59568	0.71 ppbv 9
44) 2-Hexanone	13,60	43	33151	0.96 ppbv
461 Dibromochloromethane	13.87	129		0.75 ppbv
47) 1,2-Dibromoethane (EDB)	14.12	107		0.95 ppbv
48) Tetrachloroethene	14.55	166		0,95 ppbv 0,92 ppbv
49) Chlorobenzene	15.22	112		0.94 ppbv #
50) Ethylbenzene	15.56	91		2,02 ppbv * 2
51) m,p-Xylene	15.73			0.92 ppbv
52) Bromoform	15,86			0,69 ppbv 10
53) Styrene	16.11	104		0,05 ppbv 2.

^{(#) =} qualifier out of range (m) = manual integration 0701007.D 031424AI.M Thu Mar 28 06:22:56 2024

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Data File : C:\HPCHEM\1\DATA\031424C\0701007.D

: 14 Mar 2024 1:46 pm : 1PPBV TO-15 ICAL : TO-15 ANALYSIS Acq On Sample Misc

Vial: 7 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

MS Integration Params: rteint.p Quant Time: Mar 15 4:20 2024

Quant Results File: 031424A1.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION

Last Update : Thu Mar 14 14:22:54 2024 Response via : Initial Calibration

DataAcq Meth : ENTECH1

Compound	R.T. QIon	Response	Conc Unit	Qvalue 		
54) 1,1,2,2-Tetrachloroethane 55) o-Xylene 57) 4-Ethyltoluene 58) 1,3,5-Trimethylbenzene 59) 1,2,4-Trimethylbenzene 60) 1,3-Dichlorobenzene 61) Benzyl Chloride 62) 1,4-Dichlorobenzene 63) 1,2-Dichlorobenzene 64) 1,2,4-Trichlorobenzene 65) Naphthalene 66) Hexachloro-1,3-butadiene	16.19 83 16.24 106 17.60 105 17.68 105 18.20 105 18.43 146 18.39 93 18.52 148 18.97 146 21.54 180 21.75 126 22.28 225	37295 94853 76760 77663 46311 66134 27064 47815 9901 9392	0.79 ppbv 0.93 ppbv 0.79 ppbv 0.79 ppbv 0.80 ppbv 0.72 ppbv 0.76 ppbv 0.88 ppbv 0.84 ppbv 0.95 ppbv 0.95 ppbv	85 96 90 99 92 # 97 7 92 93		

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Quantitation Report

T,ensibalud-6,1-onoirbexeH

Asphihalene

1,2,4-Trichlorobenzene,T

22.00

50 of 130

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0801008.D

Vial: 8 Operator: TJG Inst : GC/MS Ins Acq On : 14 Mar 2024 2:28 pm Sample : 2PPBV TO-15 ICAL Multiplr: 1,00

: TO-15 ANALYSIS Misc MS Integration Params; rteint,p Quant Time: Mar 14 15:15 2024

Quant Results File: 031424AI.RES

Quant Method: C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title: Method TO-15 CALIBRATION
Last Update: Thu Mar 14 14:26:31 2024
Response Value: Initial Calibration

DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc U	its I)ev	(Min)
	a 20	128	153020	5.00	ppbv		0.01
 Bromochloromethane (IS) 1,4-Difluorobenzene (IS) 	11.03	114	600710	5,00	ppbv		0,01
45) Chlorobenzene-d5 (IS)	15.17	117		5,00	ppbv		0,01
45) Chibioponzone 25 (12)							
System Monitoring Compounds				E 01			0 00
56) 4-Bromofluorobenzene (SURR	16.72	95		5,31	ppbv	ን ሰሜ	0,00
Spiked Amount 5,000 Ran	ge 62	- 145	Recover	. A	100.2	5070	
_ , _ , _ , _ , _ , _ , _ , _ , _ , _ ,						Qν	alue
Target Compounds	4,24	39	22188	1,91	ppbv	~	85
2) Propylene 3) Dichlorodifluoromethane	4,36	85	153047	2,40	ppb∨		73
4) Chloromethane	4.61		40184	1.93	ppbv	#	87
5) Vinyl Chloride	4,88	62	43841m 28984m	1,95	ppbv		
6) 1,3-Butadiene	5.05	39	28984m	2,30	bbpA		
7) Bromomethane	5,41	94	62902 21036	2,34	ppbv		88
8) Chloroethane	5,61	64			ppbv		91 92
9) Vinyl Bromide	6,02				ppbv		97
10) Trichlorofluoromethane	6,49	_	151332		ppbv ppbv	#	99
11) Acetone	6.23		68979		ppbv		94
12) Isopropyl Alcohol (IPA)	6.43 7.13		68804 81121		ppbv		91
13) 1.1-Dichloroethene	7.13		40506	1 02	ppbv		96
14) Methylene Chloride	7.61		159476	2,27	ppbv	#	100
15) Carbon Disulfide 16) trans-1,2-Dichloroethene	8,16		62092	2,40	ppbv		93
16) trans-1,2-bichiologuage 17) Methyl-tert-butyl ether	8,35		62092 127808	1.98	ppbv	#	89
18) 1,1-Dichloroethane	8.35		86819	2.00	ppbv		99
19) Vinyl Acetate	8.40		87797		ppbv		91
20) N-Hexane	9,31		53188		ppbv		98
21) 2-Butanone (MEK)	8.65	43	77341		bbpA		98
22) cis-1,2-Dichloroethene	9.13		64566		ppbv		97
23) Ethyl Acetate	9,24		81059		ppbv		98 99
24) Chloroform	9,39		131754		ppbv		97
26) Tetrahydrofuran	9,76		40575		ppbv ppbv		99
27) 1.2-Dichloroethane	10.09		85018		ppbv		100
28) 1,1,1-Trichloroethane	10,36		118392 74882		ppbv		97
29) 1,1-Dichloropropene	12.95 10.93		118523		ppbv		94
30) Carbon Tetrachloride	10,78		133420		ppbv		99
31) Benzene 32) Cyclohexane	11.05		68445	1.31	ppbv	#	82
33) 1,2-Dichloropropane	11,51		40774	1,78	ppbv		95
34) Trichloroethene	11.73		70582	2.24	ppbv		98
35) Bromodichloromethane	11,68				ppbv		97
36) 1,4-Dioxane	11,67	88	30485		ppbv		96
37) Isooctane	11,76	57	156126 54772	1.81	ppbv		91 93
38) N-Heptane	11.95		54772	1,93	ppbv		97
39) cis-1,3-Dichloropropene	12.49		90379		3 ppbv . ppbv		96
40) 4-Methyl-2-Penanone (MIBK)	12.47		78722 74882		ppbv		98
41) trans-1,3-Dichloropropene	12.95 13.15		48536		ppbv		96
42) 1,1,2-Trichloroethane	13,16		153557	2.22	ppbv	,	98
43) Toluene	13,60		73979		ppbv		97
44) 2-Hexanone 46) Dibromochloromethane	13,87		103720	2.16	s ppbv	7	98
47) 1,2-Dibromoethane (EDB)	14,12		97573	1.98	3 ppbv	•	98
48) Tetrachloroethene	14,55		101568	2,1	ppbv p	,	95
49) Chlorobenzene	15,22	112	141947		ppbv		97
50) Ethylbenzene	15.56		241161		3 ppbv		99
51) m,p-Xylene	15.74		370027) ppbv		100
52) Bromoform	15.86		110573		7 ppby		96 98
53) Styrene	16.11	104	101319		l ppbv	, 	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

^{(#) =} qualifier out of range (m) = manual integration 0801008.D 031424AI.M Thu Mar 28 06:23:02 2024

6890

Data File : C:\HPCHEM\1\DATA\031424C\0801008.D

Vial: 8
Operator: TJG
Inst : GC/MS Ins Acq On : 14 Mar 2024 2:28 pm Sample : 2PPBV TO-15 ICAL Multiplr: 1.00 : TO-15 ANALYSIS Misc

MS Integration Params: rteint.p Quant Time: Mar 14 15:15 2024 Quant Results File: 031424AI.RES

Quant Method: C:\HPCHEM\1\METHODS\031424AI,M (RTE Integrator)
Title: Method TO-15 CALIBRATION
Last Update: Thu Mar 14 14:26:31 2024
Response via: Initial Calibration

DataAcq Meth : ENTECH1

Compound	R.T. Ç	JIon	Response	Conc Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane 55) o-Xylene 57) 4-Ethyltoluene 58) 1,3,5-Trimethylbenzene 59) 1,2,4-Trimethylbenzene 60) 1,3-Dichlorobenzene 61) Benzyl Chloride 62) 1,4-Dichlorobenzene 63) 1,2-Dichlorobenzene 64) 1,2,4-Trichlorobenzene 65) Naphthalene 66) Hexachloro-1,3-butadiene	16.20 16.24 17.60 17.68 18.20 18.43 18.38 18.51 18.97 21.55 21.75 22.29	83 106 105 105 105 146 91 148 146 180 128 225	131497 85541 221953 181745 171982 115505 146587 69538 112266 25982 12782 42735	1.73 ppbv 2.09 ppbv 1.80 ppbv 1.81 ppbv 1.71 ppbv 1.78 ppbv 1.65 ppbv 2.18 ppbv 1.89 ppbv 2.36 ppbv 1.24 ppbv	99 97 95 97 97 97 92 94

Texachtoro-1,3-butedlene,T

Page

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22.00

Иарићајепе

T,eneznedosoldonT-4,S,1

Vial: 9 Data File : C:\HPCHEM\1\DATA\031424C\0901009.D 3:12 pm

Operator: TJG Inst : GC/MS Ins Acq On : 14 Mar 2024 3:1 Sample : 5PPBV TO-15 ICAL Misc : TO-15 ANALYSIS Multiplr: 1.00 Misc

MS Integration Params: rteint.p Quant Results File: 031424AI.RES Quant Time: Mar 14 15:45 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator) Title : Method TO-15 CALIBRATION

Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 15:15:57 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc Units Dev(Min)
	9,28	128	1.44113	5.00 ppbv 0.00
1) Bromochloromethane (IS)	11.03	114	616419	5.00 ppbv 0.00 5.00 ppbv 0.00
25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	15.16		508569	5,00 ppbv 0,00
45) CHIOLODelizatie-43 (15)				
System Monitoring Compounds				
56) 4-Bromofluorobenzene (SURR	16.72	95	381369	5.31 ppbv 0.00
Spiked Amount 5.000 Ran	ge 62	- 145	Recove	ry = 106.20%
Spiked Amodit 3:000 stan	3			
Target Compounds				Qvalue
2) Propylene	4.24	39	54575	5.00 ppbv 96
3) Dichlorodifluoromethane	4,34	85	443396	7,43 ppbv 100
4) Chloromethane	4.60	50	112980	6,46 ppbv # 52
5) Vinyl Chloride	4.87	62		6.38 ppbv 98
6) 1,3-Butadiene	5.05	39	74785	6.33 ppbv 92
7) Bromomethane	5.41	94		7.11 ppbv 92
8) Chloroethane	5,60	64	61255	
9) Vinyl Bromide	6,02	106	162430	7.76 ppbv # 94 6.93 ppbv 98
10) Trichlorofluoromethane	6.48	101	415835	A 1 2 - FE
11) Acetone	6.22	43	211529	
12) Isopropyl Alcohol (IPA)	6,43	45	192147 225038	6.30 ppbv # 94 6.27 ppbv 97
13) 1,1-Dichloroethene	7.14	61	225038	6.27 ppbV 97 5.75 ppbV 98
14) Methylene Chloride	7,22	84	133878 436925	5.75 ppbv 98 6.73 ppbv # 100
15) Carbon Disulfide	7,61	76	436945	6.70 ppbv 98
16) trans-1,2-Dichloroethene	8.15	96	160892 373156	6.26 ppbv # 91
17) Methyl-tert-butyl ether	8,36	73	3/3130	6.59 ppbv 99
18) 1,1-Dichloroethane	8,34		252242	V, V - FF
19) Vinyl Acetate	8,39		260697 144014	
20) N-Hexane	9.32		207830	
21) 2-Butanone (MEK)	8,64		186895	o Fr
22) cis-1,2-Dichloroethene	9,13		231860	6.67 ppbv 99
23) Ethyl Acetate	9,23 9,39		360488	6.98 ppbv 99
24) Chloroform	9.76		105357	5.23 ppbv 97
26) Tetrahydrofuran	10.09		235139	6,30 ppbv 100
27) 1,2-Dichloroethane	10.35		323208	6,63 ppbv 97
28) 1,1,1-Trichloroethane	12.95		233699	5.65 ppbv 97
29) 1;1-Dichloropropene 30) Carbon Tetrachloride	10,92		331055	6.38 ppbv 100
	10.78		370513	6.20 ppbv 99
31) Benzene 32) Cyclohexane	11.06		157747	3,09 ppbv 96
33) 1,2-Dichloropropane	11,51		115826	
34) Trichloroethene	11.72		186861	5,85 ppbv 97
35) Bromodichloromethane	11.67	83	319330	6,59 ppbv 99
36) 1,4-Dioxane	11.66	88	77797	5.09 ppbv 97
37) Isooctane	11.76	57	458458 161577	5.51 ppbv # 95
38) N-Heptane	11.94	43		
39) cis-1,3-Dichloropropene	12.49	75	233446	5,68 ppbv 95
40) 4-Methyl-2-Penanone (MIBK)	12.47		219006	4,92 ppbv 99
41) trans-1,3-Dichloropropene	12.95	75	233699	5,14 ppbv 96 5,70 ppbv 97
42) 1,1,2-Trichloroethane	13,16		131929	
43) Toluene	13.45		430311	- · F L
44) 2-Hexanone	13,60		195870	4111 FF.
46) Dibromochloromethane	13.87		306681	Oloo Pri
47) 1,2-Dibromoethane (EDB)	14.12		270996	OTOE PP.
48) Tetrachloroethene	14.55		290956	6,40 ppbV 96 5,94 ppbV 99
49) Chlorobenzene	15,21		374914	5.73 ppbv 98
50) Ethylbenzene	15,56		604020	11.56 ppbv 99
51) m.p-Xylene	15.73		955789 315907	5.80 ppbv 99
52) Bromoform	15,86		287376	5.09 ppby 100
53) Styrene	16,10		201313	

^{(#) =} qualifier out of range (m) = manual integration $0901009.D \quad 031424AI.M$ Thu Mar 28 $06:23:10 \quad 2024$

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Quantitation Report

(QT Reviewed)

Vial: 9

Data File : C:\HPCHEM\1\DATA\031424C\0901009.D

Acq On : 14 Mar 2024 3:3 Sample : 5PPBV TO-15 ICAL

Operator: TJG Inst : GC/MS Ins 3:12 pm

TO-15 ANALYSIS

Multiplr: 1.00 Misc MS Integration Params: rteint.p Quant Results File: 031424AI.RES Quant Time: Mar 14 15:45 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 15:15:57 2024
Response via : Initial Calibration

DataAcq Meth : ENTECH1

Compound	R.T. Q	Ion	Response	Conc Uni	it (Qvalue
54) 1,1,2,2-Tetrachloroethane 55) o-Xylene 57) 4-Ethyltoluene 58) 1,3,5-Trimethylbenzene 59) 1,2,4-Trimethylbenzene 60) 1,3-Dichlorobenzene 61) Benzyl Chloride 62) 1,4-Dichlorobenzene 63) 1,2-Dichlorobenzene 64) 1,2,4-Trichlorobenzene 65) Naphthalene 66) Hexachloro-1,3-butadiene	17.60 17.68 18.20 18.43 18.39 18.51	83 106 105 105 105 146 91 148 146 180 128 225	339820 223129 587803 502146 466545 323602 419029 193990 326418 94339 51023 111578	4.75 R 5.68 R 4.96 R 5.24 R 4.83 R 5.19 R 6.14 R 5.66 R 8.41 R 5.29 R 4.31	ppbv ppbv ppbv ppbv ppbv ppbv ppbv ppbv	95 98 97 98 100 98 98 96 98 98

Quantitation Report

Hexachioro-1,3-buledlene,T

FAGE

28 06:23:10

Thu Mar

031424AI.M

0901060

56 of 130

 $^{\circ}$

22,00

21.00

20.00

Maphilialene

T,enesnedoroidohT-A,S,†

Vial: 10

Data File : C:\HPCHEM\1\DATA\031424C\1001010,D

Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00 Acq On : 14 Mar 2024 3:57 pm Sample : 10PPBV TO-15 ICAL Misc : TO-15 ANALYSIS

MS Integration Params: rteint.p

Quant Results File: 031424AI.RES Quant Time: Mar 15 4:16 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI,M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update Response via : Initial Calibration
DataAcq Meth : ENTECH1

ouried the angle of				Cona lin	ita De	w/Mir
nternal Standards	R.T. ()lon 	Response			
1) Bromochloromethane (IS)	9.27	128	149192		bbpv	
25) 1,4-Difluorobenzene (IS)	11.02	114	627089	5,00	ppbv	0.0
45) Chlorobenzene-d5 (IS)	15,16	117	508163	5.00	ppb∨	0,0
ystem Monitoring Compounds 56) 4-Bromofluorobenzene (SURR	16.71	95	395123	5,23	ppbv	0.0
Spiked Amount 5.000 Ran	ge 62	- 145	Recove	ery =	104.60)%
					(Qvalue
arget Compounds 2) Propylene	4,24	39	105980	9.79		10 10
3) Dichlorodifluoromethane	4,34	85	899996	13.87		10
4) Chloromethane	4.58	50	214824	13,08		1
5) Vinyl Chloride	4.87	62	256024			1
6) 1.3-Butadiene	5,04	39	139008	12,21 13,00		1
7) Bromomethane	5.40	94	333821			1
8) Chloroethane	5,61	64	125699	13.33		1
9) Vinyl Bromide	6.01	106	322423	12,54 12,59		1
10) Trichlorofluoromethane	6.48	101	812132			ī
11) Acetone	6.21	43	418762	12,43	ppbv	1
12) Isopropyl Alcohol (IPA)	6,43	45	368216	13,32		1
13) 1,1-Dichloroethene	7.13	61	460362			1
14) Methylene Chloride	7,22	84	273150			
15) Carbon Disulfide	7.61	76	882471	13.75 13.36		" 1
16) trans-1.2-Dichloroethene	8.14	96	322518			ī
17) Methyl-tert-butyl ether	8.34	73	798830	12.73		î
18) 1,1-Dichloroethane	8.33	63	490538			1
19) Vinyl Acetate	8.39	43	594184	13.72		1
20) N-Hexane	9,31	57	279743			1
21) 2-Butanone (MEK)	8.63	43	453729	13.90		1
22) cis-1,2-Dichloroethene	9.11	61	362670	12.60		1
23) Ethyl Acetate	9.22	43	484548	15.03		1
24) Chloroform	9,38	83	694226	12.64	ppbv	1
26) Tetrahydrofuran	9,75	42	215892	13,27		1
27) 1,2-Dichloroethane	10.08	62	460979	12.19		1
28) 1,1,1-Trichloroethane	10.35	97	699541	13.23		î
29) 1,1-Dichloropropene	12.94	75	451177	11,12		1
30) Carbon Tetrachloride	10.92	117	689274	13.00		1
31) Benzene	10.77	78	746846	12.52		1
32) Cyclohexane	11,05	56	320893	6.74		1
33) 1,2-Dichloropropane	11.51	63	229313	12,13		1
34) Trichloroethene	11,71	95		11.86	pppv	1
35) Bromodichloromethane	11.66	83		13.83		1
36) 1,4-Dioxane	11.66	88			ppbv	1
37) Isooctane	11.75				ppbv	1
38) N-Heptane	11.94	43	329010		ppbv	
39) cis-1,3-Dichloropropene	12.47	75	494966		ppbv	1
40) 4-Methyl-2-Penanone (MIBK)	12.47	43	474103		ppbv	1
41) trans-1,3-Dichloropropene	12.94	75	451177		ppbv	1
42) 1,1,2-Trichloroethane	13,15		262403		ppbv	
43) Toluene	13.44	91	885102		ppbv]
44) 2-Hexanone	13,59	43	438808		ppbv	
46) Dibromochloromethane	13,86		654207		bbpA	-
47) 1,2-Dibromoethane (EDB)	14.11	107	552338		ppbv	
48) Tetrachloroethene	14,54	166	584966		bbpA	
49) Chlorobenzene	15,20		749902		ppbv	
50) Ethylbenzene	15.55		1259745		ı bbpv	
51) m,p-Xylene	15.73		1965597		bbpA	
04) m, p. 214010			660900	12 21	. ppbv	
52) Bromoform	15,85	173	669899		ppbv	

Quantitation Report

(QT Reviewed)

Data File ; C:\HPCHEM\1\DATA\031424C\1001010.D

Acq On : 14 Mar 2024 3:57 pm Sample : 10PPBV TO-15 ICAL Misc : TO-15 ANALYSIS

Misc

MS Integration Params: rteint.p

Vial; 10 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

Quant Results File: 031424AI.RES Quant Time: Mar 15 4:16 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Fri Mar 15 04:15:48 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
54) 1.1.2.2-Tetrachloroethane 55) o-Xylene 57) 4-Ethyltoluene 58) 1.3.5-Trimethylbenzene 59) 1.2.4-Trimethylbenzene 60) 1.3-Dichlorobenzene 61) Benzyl Chloride 62) 1.4-Dichlorobenzene 63) 1.2-Dichlorobenzene 64) 1.2.4-Trichlorobenzene 65) Naphthalene 66) Hexachloro-1.3-butadiene	16.18 16.23 17.59 17.67 18.19 18.42 18.38 18.50 18.97 21.54 21.75 22.28	83 106 105 105 105 146 91 148 146 180 128 225	668258 450675 1197821 1017735 979084 676514 860937 409648 635616 234136 186602 215324	10.48 ppbv 11.80 ppbv 10.42 ppbv 10.79 ppbv 10.65 ppbv 10.60 ppbv 10.48 ppbv 12.00 ppbv 10.64 ppbv 17.51 ppbv 19.01 ppbv 9.47 ppbv	100 100 100 100 100 100 100 100

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									SIN PARTY	M3.2,1									17.00 18.00	
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sul s	031424AI.RES	q :	ļ.					T,anad	Β ε μ ίοιο ο[¥ 9 ⊥	19	OCEDB)	srlleomor						15.00	
Vial: 10 ator: TJG GC/MS iplr: 1.00	File: 03142	:or) TIC:1001010.D						ı filman	ntok podlove slotn		T,e T,en	enağçaqər İsrilaoşolri T,anaul	юћТ-s,1,1 ют ;	akanta Tanonex	5-H6)	,			13.00	06
Vial: Vial: Operator: Inst	Results Fi	Integrator)						ІВК У.	hátragons		ri्शिस्तरोड	J. e John J. f.			<u>'</u> '',			440	11.00 12.00	0689
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240/10010		METHODS\031424\)CALIBRATION 8:31:02 2024 bration									l '19ນັນນາໄດ້		¢αι∌Ν ,enerlieon L.(2), ene L.(αποίο/δ	т(Я	∃M) euc	S-Batauc		i) 00.0	28
DATA\0314 3:57 pm ICAL IS		MAINMETHODS 0-15 CALIBR 17 18:31:02 Calibration								-		T,ene T,ene	chloroeth	1		SKIDERA IG nodra	0 -		7.00 8.00	Thu Mar
C:\FPCHEM\1\DATA\031424C\1001010.D 14 Mar 2024 3:57 pm 10PBV TO-15 ICAL TO-15 ANALYSIS	eran 15	C:\HPCHEM\1\METHODS\031424AI.M Method TO-15 CALIBRATION Sun Mar 17 18:31:02 2024 Initial Calibration											T₁∌धा		Τ,	Bromide	lariyaosol lyniV nojesA	I40 C	9.00	:
	egration Fime: Mar	te Via											1,an			olfold ^{1, e} T, ensril T, ebhol T, en elbe	nogylene hloromet holy hal-e,t	6 = 6 =	5 7_8	
Data Fi Acq On Sample Misc	MS Int Quant	Method Title Last Update Response vi	Abundance 3400000	300000	2800000-	2600000	2400000	2200000	2000000	1800000	1600000	1400000	120000	1000000	800000	000009	400000	00000 59 o	f 130	 010

Quantitation Report

Data File : C:\HPCHEM\1\DATA\031424C\1101011.D Acq On : 14 Mar 2024 4:46 pm Sample : 20PPBV TO-15 ICAL Vial: 11 Operator: TJG Inst ; GC/MS Ins

TO-15 ANALYSIS Misc

MS Integration Params: rteint.p Quant Time: Mar 15 4:14 2024

Multiplr: 1.00 Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Fri Mar 15 04:13:10 2024 Response via : Initial Calibration DataAcq Meth : ENTECH1

	rnal Standards	R.T.	QIon	Response				
	Bromochloromethane (IS)	9.27	128	142878		ppbv		0,00
25)	1,4-Difluorobenzene (IS)	11,02	114	568079	5.00	ppbv		0.00
45)	Chlorobenzene-d5 (IS)	15.15	117	484274	5.00	ppbv	_	0.01
Syste	em Monitoring Compounds	16 80	0.5	387123	5 53	ppbv		0,00
56)	4-Bromofluorobenzene (SURK	16,70	95		∍ry =		0%	•,
Sp.	iked Amount 5,000 Ran	ge 62	~ 143	NOCOV)			1
Targ	et Compounds		20	202479	19.09		QVa	lue 97
2)	Propylene	4,23	39 85	203478 1706589	28.11			99
3)	Dichlorodifluoromethane	4,33 4,58	_	382509		ppbv		99
	Chloromethane	4.85		475127		ppbv		98
	Vinyl Chloride	5.03				ppbv		94
	1,3-Butadiene	5.39		645640	25,84	ppbv		95
	Bromomethane Chloroothano	5,60	64	249663		bbpA	#	85
ן ס	Chloroethane Vinyl Bromide	6,01		661199		bbpA		98
101	Trichlorofluoromethane	6.47		1621003		bbpA		99
	Acetone	6,21	43	798162	18.57	ppbv	Ħ	97
121	Isopropyl Alcohol (IPA)	6.42	45	749204		ppbv	Ħ	99 98
13)	1,1-Dichloroethene	7.11		900238		ppbv		96
14)	Methylene Chloride	7.22		544965		ppbv	#	100
151	Carbon Disulfide	7.59				ppbv ppbv	í,	99
161	trans-1,2-Dichloroethene	8 13		612216		ppbv	Ħ	96
17)	Methyl-tert-butyl ether	8.34		1526874		ppbv	*	99
18)	1,1-Dichloroethane	8.32		902350		ppbv	Ħ	94
19)	Vinyl Acetate	8,38 9,30		1420737 533770		ppbv		99
20)	N-Нехапе	8,62		832142		ppbv		99
21)	2-Butanone (MEK)	9.10		714755		ppbv		99
22)	cis-1,2-Dichloroethene	9.22		893318		ppbv		99
23)	Ethyl Acetate Chloroform	9.37		1372484	26.18	ppbv		96
24)	Tetrahydrofuran	9.74	42	399346		. ppbv		100
20)	1,2-Dichloroethane	10.07		891456		bbpv		98
281	1,1,1-Trichloroethane	10.34		1359567		ppbv		99
29	1,1-Dichloropropene	12.94	75) ppbv		97 99
30	Carbon Tetrachloride	10.91				i ppbv		97
) Benzene	10.76) ppbv		96
32	Cyclohexane	11,04				ppbv		99
33	1,2-Dichloropropane	11.50		441036		7 ppbv 2 ppbv		98
34) Trichloroethene	11.71		-		3 ppbv		99
) Bromodichloromethane	11.66				ppbv		99
) 1,4-Dioxane	11.65				ppbv		95
37) Isooctane	11.74 11.93				4 ppb∨		96
38	N-Heptane	12.4		936294		o ppbv		99
39) cis-1,3-Dichloropropene	12.4		893485		3 ppbv		99
40) 4-Methyl-2-Penanone (MIBK)) trans-1,3-Dichloropropene	12.9			22.8	3 ppbv		97
41) 1,1,2-Trichloroethane	13.1			25.1	1 ppbv		100
		13.4			25.9	4 ppb∨	•	99
) Toluene) 2-Hexanone	13.5			23.6	1 ppbv	•	99
46) Dibromochloromethane	13.8		1295063		0 bbpv		100
47) 1,2-Dibromoethane (EDB)	14.1	1 107	1113013		5 ppbv		100
417) Tetrachloroethene	14.5		1103139		9 ppbv		98
49) Chlorobenzene	15.2				4 ppbv		99
) Ethylbenzene	15.5				8 ppbv		97
) m,p-Xylene	15.7				4 ppbv		99
) Bromoform	15.8				4 ppbv		100 100
) Styrene	16,1	0 104	1237869	23.6	7 ppbν	,	TO

 $^{(\#) = \}text{qualifier out of range } (m) = \text{manual integration}$ 1101011.D 031424AI.M Thu Mar 28 06:23:27 2024

60 of 130

6890

Data File : C:\HPCHEM\1\DATA\031424C\1101011.D
Acq On : 14 Mar 2024 4:46 pm
Sample : 20PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS

Vial: 11 Operator: TJG Inst : GC/MS Ins Multiplr: 1,00

MS Integration Params: rteint.p Quant Time: Mar 15 4:14 2024

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI,M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Fri Mar 15 04:13:10 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T. QIon	Response	Conc Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane 55) o-Xylene 57) 4-Ethyltoluene 58) 1,3,5-Trimethylbenzene 59) 1,2,4-Trimethylbenzene 60) 1,3-Dichlorobenzene 61) Benzyl Chloride 62) 1,4-Dichlorobenzene 63) 1,2-Dichlorobenzene 64) 1,2,4-Trichlorobenzene 65) Naphthalene 66) Hexachloro-1,3-butadiene	16.18 83 16.22 106 17.59 105 17.67 105 18.19 105 18.42 146 18.37 91 18.50 148 18.97 146 21.54 180 21.74 128 22.28 225	232267m	19.40 ppbv 22.45 ppbv 20.10 ppbv 21.13 ppbv 20.29 ppbv 20.53 ppbv 21.19 ppbv 24.92 ppbv 21.27 ppbv 23.00 ppbv 24.65 ppbv 17.39 ppbv	94 98 99 99 99 98 96

22.00

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DATAN 4:46 5 ICAL SIS rteint 4 2024	2 m H H							•	1'£	ામાં કુલા કુલા કુલા કુલા કુલા કુલા કુલા કુલા	-		- 0:	답
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C:\HEC 14 Mar 20PPBV TO-15 on Par Mar 15	OENH									T,ene	nflamomonB		#	124
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_ # E E E E	Method Title Last Update Response via	<u> </u>	ģ	<u>ò</u>	ģ	8	<u> </u>	- 8	8	8	8	<u> </u>	0.4	13
Data F Acq On Sample Misc MS Int Quant	Method Title Last Uj Respons	6000000	5000000	4500000	4000000	3500000	3000000	2500000	2000000	150000	1000000	500000	A.	110
Dad Acc Sar MS MS	Metho Title Last Respo	60C 550	500	450	40 <u>C</u>	35(30	25	8	រប	5	ц	7me-	1101011.D
	्द											62 of		

Quantitation Report

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Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031424C\1201012.D

Vial: 12 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00 Acq On : 14 Mar 2024 5:30 pm Sample : 10PPBV TO-15 ICAL VER Misc : TO-15 ANALYSIS

MS Integration Params: rteint.p

: C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator) Method

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min Max. RRF Dev : 50% Max. Rel. Area : 200%

Max. K	Kk Dev ; 20% Max, Kei, Ai				A. 5	
	Compound	AvgRF	CCRF	Dev Ar		
1 T	Bromochloromethane (IS)	1,000	1.000	0.0	89	0,00
2 T	Propylene	0,372	0.352	5.4	88	-0,01
3 T	Dichlorodifluoromethane	2.758	3,082	-11.7	90	0.00 0.01
4 T	Chloromethane	0.724	0.677	6.5	83 82	-0.01
5 T	Vinyl Chloride	0.877	0,828	5.6 2,1	81	-0.01
6 T	1,3-Butadiene	0.486	0,476	11.7	73	0.00
7 T	Bromomethane	1,041	0,919 0,443	0,2	93	0,00
8 T	Chloroethane	0.444 0.992	0.965	2,7	90	0,00
9 T	Vinyl Bromide	2.522	2.485	1.5	81	-0,01
10 T	Trichlorofluoromethane	1,631	1,429	12.4	90	0.00
11 T	Acetone Isopropyl Alcohol (IPA)	1,155	1,125	2.6	81	-0.01
12	1,1-Dichloroethene	1.474	1.599	-8.5	92	0.00
13	Methylene Chloride	0,858	0.936	-9,1	91	0.00
14 T 15 T	Carbon Disulfide	2.733	2.930	-7.2	88	-0.01
16 T	trans-1,2-Dichloroethene	0.991	0.991	0.0	81	0.00
17 T	Methyl-tert-butyl ether	2,659	2,690	-1.2	89	0.00
18 T	1,1-Dichloroethane	1,686	1.622	3,8	87	0.00
19 T	Vinyl Acetate	1.908	1.981	-3.8	88	-0.01 0.00
20 T	N-Hexane	1.042	0,931	10.7	88 102	0,00
21 T	2-Butanone (MEK)	1.233	1.348	-9,3 -6,5	86	0,00
22 T	cis-1,2-Dichloroethene	1.107	1.179 1.562	-0.5 -0.5	85	0,00
23 T	Ethyl Acetate	1,554	2.209	-2,1	84	0.00
24 T	Chloroform	2.163	2.209			
25 T	1,4-Difluorobenzene (IS)	1,000	1.000 0.177	0,0 8,3	88 83	0,00 -0,01
26 T	Tetrahydrofuran	0,193 0,384	0,380	1.0	91	0,00
27 T	1,2-Dichloroethane	0,304	0,590	-2,1	93	0,00
28 T	1,1,1-Trichloroethane	0.410	0.377	8.0	92	0,00
29 T	1,1-Dichloropropene Carbon Tetrachloride	0,542	0,575	-6,1	92	0,00
30 T 31 T	Benzene	0.592	0,593	-0,2	88	0,00
31 T	Cyclohexane	0.379	0,383	-1,1	94	0,00
33 T	1,2-Dichloropropane	0,188	0.173	8,0	83	0,00
34 T	Trichloroethene	0.296	0,323	-9,1	93	0,00
35 T	Bromodichloromethane	0.533	0,559	-4.9	91	0,00
36 T	1,4-Dioxane	0,151	0.145	4.0	86	-0.01 0.00
37 T	Isooctane	0.793	0,730	7.9	84 84	0,00
38 T	N-Heptane	0,250	0,249	0,4 -9,8	102	0.00
39 T	cis-1,3-Dichloropropene	0,337 0,331	0,370 0,365	-10,3	85	0.00
40 T	4-Methyl-2-Penanone (MIBK)	0,351	0,377	-5.0	92	0,00
41 T	trans-1,3-Dichloropropene	0.226	0,218	3,5	92	0,00
42 T	1,1,2-Trichloroethane Toluene	0.612	0,706	~15.4	95	0,00
43 T 44 T	2-Hexanone	0.372	0.345	7.3	87	0,00
45 I	Chlorobenzene-d5 (IS)	1,000	1,000	0,0	97	0,00
45 T	Dibromochloromethane	0,543	0.574	-5.7	94	0,00
47 T	1,2-Dibromoethane (EDB)	0,521	0.518	0.6	93	0.00
48 T	Tetrachloroethene	0.488	0.494	-1.2	95	0.00
49 T	Chlorobenzene	0,671	0.677	-0.9	89	0.00 0.00
50 T	Ethylbenzene	0,986	1,078	-9.3 4.3	105 90	0.00
51 T	m,p-Xylene	0.863	0.900	-4.3 -2.7	94	0,00
52 T	Bromoform	0,622	0.639	-16.6	107	0,00
53 T	Styrene	0.529 0.610	0,617 0,631	-10.0	93	0,00
54 T	1,1,2,2-Tetrachloroethane	0.405	0.421	-4.0	92	0.00
55 T	o-Xylene	0.723	0.756	-4.6	94	0.00
56 S	4-Bromofluorobenzene (SURR)	1,060	1.128	6.4	93	0,00
57 T	4-Ethyltoluene 1,3,5-Trimethylbenzene	0.897	0,937	~4.5	91	0,00
58 T 59 T	1,2,4-Trimethylbenzene	0,888	0.918	-3.4	92	0.00
60 T	1,3-Dichlorobenzene	0,608	0.634	-4,3	93	0,00
00 I	1,5 210					

62 T 63 T 64 T 65 66 T	1,4-Dichlorobenzene 1,2-Dichlorobenzene 1,2,4-Trichlorobenzene Naphthalene Hexachloro-1,3-butadiene	0.336 0.561 0.084 0.100 0.206	0.375 0.601 0.088 0.091 0.204	-11,6 -7,1 -4,8 9,0 1.0	93 104	0.00 0.00 0.00 0.00	
	Benzyl Chloride	0,,.0	0.834 0.375		103	0.00	

(#) = Out of Range SPCC's out = 0 CCC's out = 0 1001010.D 031424AI,M Thu Mar 28 06:23:30 2024 6890

(QT Reviewed) Quantitation Report

Data File : C:\HPCHEM\1\DATA\031424C\1201012.D

Vial: 12 Operator: TJG Inst : GC/MS Ins Acq On : 14 Mar 2024 5:30 pm Sample : 10PPBV TO-15 ICAL VER Misc : TO-15 ANALYSIS Multiplr: 1.00

MS Integration Params: rteint.p Quant Results File: 031424AI.RES Quant Time: Mar 17 18:34 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards 1) Bromochloromethane (IS) 25) 1.4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9,27	QIon 128	Response 132052				(Min)
25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9,27 11,01	128	132052	E 00			
25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	11.01			5,00			0,00
45) Chlorobenzene-d5 (IS)		114	553013		ppbv		0.00
	15,16	117	493339	5,00	bbpA		0,00
Cretom Monitoring Compounds							
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR	16.70	95	373182	5,23	ppbv		0,00
Spiked Amount 5,000 Ran	ge 62	- 145	Recove	ry =	104.6	0%	
Tanget Compounds						Q٧٤	alue
Target Compounds 2) Propylene	4.23	39	92858		ppbv		96
3) Dichlorodifluoromethane	4.34	85	813964	11.18			99
4) Chloromethane	4,59	50	178858	9,35	bbpA		
5) Vinyl Chloride	4.86	62	218656	9,44			
6) 1,3-Butadiene	5,03	39		9,79			0.6
7) Bromomethane	5,40	94	242650	8,83			96
8) Chloroethane	5,60	64	117029	9,97	vaqq		0.0
9) Vinyl Bromide	6.01	106	254970	9.73	bbbv		99
10) Trichlorofluoromethane	6.47	101	656218	9.85			0.6
11) Adetone	6.21	43	377521	8,76			96
12) Isopropyl Alcohol (IPA)	6,41	45	297138	9.74			0.0
13) 1,1-Dichloroethene	7,13	61	422255	10.85			96
14) Methylene Chloride	7.22	84	247319	10.92		24	94
15) Carbon Disulfide	7.60	76	773796	10,72	ppbv	Ħ	100
16) trans-1,2-Dichloroethene	8.14	96	261640m	9,99		11	0.17
17) Methyl-tert-butyl ether	8,34	73	710457		ppbv	Ħ	97
18) 1,1-Dichloroethane	8,33	63	428291	9,62	pppv		99
19) Vinyl Acetate	8,38	43	523228		ppbv		99
20) N-Hexane	9,30	57	245940	8.94			99
21) 2-Butanone (MEK)	8,63	43	355987		ppbv		
22) cis-1,2-Dichloroethene	9,12	61	311271		ppbv		99
23) Ethyl Acetate	9,22	43	412490		ppbv		,,
24) Chloroform	9,37		583522		ppbv		
26) Tetrahydrofuran	9.74	42	195626	9,17			97
27) 1,2-Dichloroethane	10.07	62	420647	9,90			98
28) 1,1,1-Trichloroethane	10,35	97	652882	10,44	ppbv		96
29) 1,1-Dichloropropene	12.94	75	416823		ppbv		99
30) Carbon Tetrachloride	10,91	117	635610		ppbv		98
31) Benzene	10,77		655739		ppbv		50
32) Cyclohexane	11,04		423552m) ppbv	#	91
33) 1,2-Dichloropropane	11.50		190956		ppbv	#	97
34) Trichloroethene	11.71			10,93	ppbv		98
35) Bromodichloromethane	11.66		618570	10,50	ppbv		97
36) 1,4-Dioxane	11.65			9,61 9,20	. ppbv	#	94
37) Isooctane	11.74			0.09	ppbv	tī	98
38) N-Heptane	11,94		275690				, ,
39) cis-1,3-Dichloropropene	12.47		408909	10.97	bbp.		96
40) 4-Methyl-2-Penanone (MIBK)	12.46		403850				98
41) trans-1,3-Dichloropropene	12.94		416823) ppbv 5 ppbv		97
42) 1,1,2-Trichloroethane	13,14		241214				98
43) Toluene	13.44		781097		ppbv		99
44) 2-Hexanone	13,59		381241		ppbv		, ,
46) Dibromochloromethane	13.85		566438		ppbv		99
47) 1,2-Dibromoethane (EDB)	14,11		510997		ppbv		, ,
48) Tetrachloroethene	14.54		487042		l ppbv		99
49) Chlorobenzene	15,20		668109		ppbv		,,,
50) Ethylbenzene	15,55		1063931		3 ppbv		100
51) m.p~Xylene	15.73		1775912		ppbv		100
52) Bromoform	15.85				ppbv		98
53) Styrene	16.10	104	608440	ΥΤ' Ο (5 ppbv		

6890

(QT Reviewed)

Data File: C:\HPCHEM\1\DATA\031424C\1201012.D
Acq On: 14 Mar 2024 5:30 pm
Sample: 10PPBV TO-15 ICAL VER
Misc: TO-15 ANALYSIS

MS Integration Params: rteint.p

Vial: 12 Operator: TJG Inst : GC/MS Ins

Multiplr: 1.00

Quant Results File: 031424AI.RES Quant Time: Mar 17 18:34 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane 55) o-Xylene 57) 4-Ethyltoluene 58) 1,3,5-Trimethylbenzene 59) 1,2,4-Trimethylbenzene 60) 1,3-Dichlorobenzene 61) Benzyl Chloride 62) 1,4-Dichlorobenzene 63) 1,2-Dichlorobenzene 64) 1,2,4-Trichlorobenzene 65) Naphthalene 66) Hexachloro-1,3-butadiene	16.18 16.22 17.59 17.67 18.19 18.42 18.37 18.50 18.97 21.54 21.74 22.28	83 106 105 105 105 146 91 148 146 180 128 225	622538 415334 1113309 924042 905411 625916 822709 369782 592982 87316 89767 201670	10.34 ppbv 10.40 ppbv 10.65 ppbv 10.45 ppbv 10.34 ppbv 10.43 ppbv 10.79 ppbv 11.17 ppbv 10.71 ppbv 10.50 ppbv 9.13 ppbv 9.91 ppbv	92 100 100 99 99 99 99

Vial:

C; \HPCHEM\1\DATA\031424C\1201012.D

Data File

Acq On Sample ទី

031424AI.RES

Results File:

Quant 1

MS Integration Params: rteint.p

Mar 17 18:34 2024

Quant Tíme:

Method

Title

Inst Multiplr: Operator

67 of 130

ENVISIONAIR

TO-15 VOC Continuing Calibration Data

- Tune Data
- Continuing Calibration
 Verification Summary
- Continuing Calibration
 Verification (CCV) Quant
 Report
- Internal Standard Area
 Summary

Data File : C:\HPCHEM\1\DATA\040324\0201002.D

5:29 pm Acq: On

3 Apr 2024 BFB/CCV 10PPBV Sample : TO-15 ANALYSIS Misc

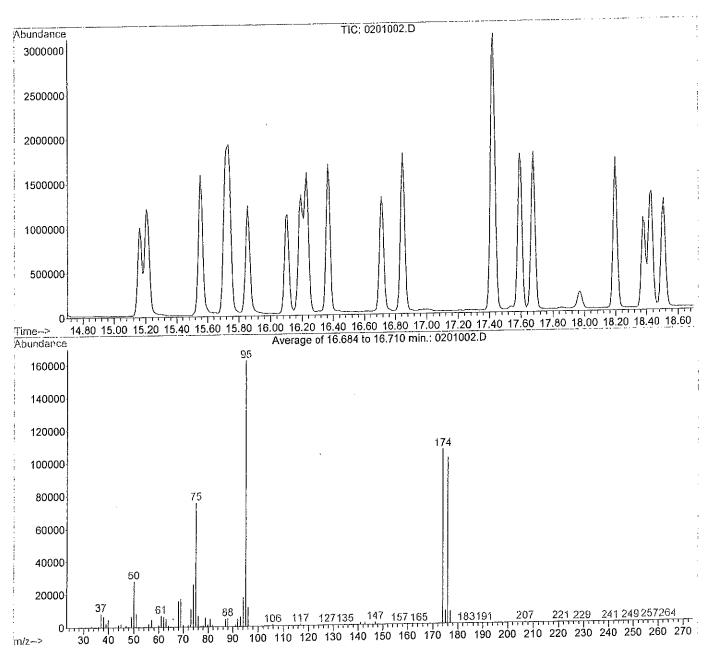
Vial: 2 Operator: TJG ; GC∕MS Ins Inst

Multiplr: 1.00

MS Integration Params: rteint.p

: C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator) Method

: Method TO-15 CALIBRATION Title



Spectrum Information: Average of 16.684 to 16.710 min.

ppocoram	# =						
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	1	Raw Abn	Result Pass/Fail
50 75 95 96 173 174 175 176 177	95 95 95 95 174 95 174 174	15 30 100 2 0.00 50 5 95	40 60 100 9 2 100 9 101	17.2 46.7 100.0 7.0 0.0 65.6 7.5 95.1 7.4		27875 75620 162002 11421 0 106242 8001 101072 7521	PASS PA
	· · · · · · · · · · · · · · · · · · ·						

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\040324\0201002.D

Acq On : 3 Apr 2024 5:29 pm Sample : BFB/CCV 10PPBV Misc : TO-15 ANALYSIS

Vial: 2 Operator: TJG Inst : GC/MS Ins

Multiplr: 1.00

MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Multiple Level Calibration

Min, RRF ; 0.010 Min, Rel. Area : 50% Max. R.T. Dev 0.50min Max. RRF Dev : 50% Max. Rel. Area : 200%

Max	, RRF Dev : 50% Max. Rel. A	irea , 200	276		
	Compound	AvgRF	CCRF	%Dev Area%	
1 T	Bromochloromethane (IS)	1,000	1.000	0,0 108	
2 T		0.372	0,330	11.3 100	
3 T		2.758	2,615	5.2 94	
4 T	_	0.724	0.722	0.3 109	
5 T		0.877	0.796	9,2 97	
6 T		0.486	0,522	-7,4 109	
7 T	Bromomethane	1.041	1,033	0,8 100	
8 T		0.444	0.404	9,0 104 -0.7 114	
9 T		0,992	0.999	$-0.7 114 \\ -0.3 101$	
10 T		2.522	2,530	5.2 119	
11 T	Acetone	1,631	1,547 1,190	-3.0 104	
12	Isopropyl Alcohol (IPA)	1.155 1.474	1.522	-3.3 107	
13	1,1-Dichloroethene	0.858	0.877	-2.2 104	
14 T	Methylene Chloride	2,733	2.749	-0.6 101	
15 T		0,991	1.024	-3,3 103	
16 T		2.659	2.676	-0.6 108	0.00
17 T		1,686	1,676	0.6 110	0.00
18 T 19 T		1,908	1,968	-3,1 107	0.00
20 T		1.042	1.078	-3.5 124	0.00
20 T		1.233	1,245	-1.0 115	
21 I		1,107	1,150	-3,9 102	
23 T		1.554	1.597	-2.8 106	
24 T		2.163	2.310	-6.8 107	0,00
		1,000	1,000	0.0 112	0.00
25 T	1,4-Difluorobenzene (IS)	0.193	0,193	0.0 115	
26 T		0,384	0,347	9,6 106	0.00
27 T		0.578	0.522	9.7 105	0.00
28 T 29 T		0.410	0.344	16,1 107	0.00
30 T		0,542	0,510	5,9 104	
31 T		0.592	0.595	-0.5 112	
32 T		0,379	0.352	7.1 110	
33 T	<u> </u>	0,188	0,190	-1.1 116	
34 T		0.296	0,295	0,3 108	
35 T		0.533	0.518	2,8 107	
36 T		0.151	0,145	4.0 109	
37 T		0.793	0.798	-0.6 117	
38 T		0.250	0.248	0.8 106 1.8 116	
39 T	cis-1,3-Dichloropropene	0,337	0.331	-2.1 100	
40 T	4-Methyl-2-Penanone (MIBK)	0,331	0,338	4.2 107	
41 T		0,359	0.344 0.205	9.3 110	
42 T		0,226	0,602	1,6 103	
43 T		0.612 0.372	0,002	-7.8 129	
44 T	2-Hexanone	0.372			
45 I		1,000 0.543	1.000 0.531	0.0 121 2.2 109	0.00 0.00
46 T		0.521	0.465	10.7 104	0,00
47 T		0.488	0.431	11.7 104	0.00
48 T 49 T		0,671	0,616	8,2 101	0,00
50 T		0,986	0.972	1.4 119	0.00
51 T	m.p-Xylene	0.863	0,885	-2.5 111	0.00
52 T	Bromoform	0.622	0.537	13.7 99	0.00
53 T	Styrene	0.529	0.544	-2.8 118	0,00
54 T	1,1,2,2-Tetrachloroethane	0,610	0.620	-1.6 114	0,00
55 T	o-Xylene	0.405	0,384	5,2 105	0,00
56 S	4-Bromofluorobenzene (SURR)	0,723	0,714	1,2 111	0,00
57 T	4-Ethyltoluene	1.060	1.112	-4.9 114	0.00 0.00
58 T	1,3,5-Trimethylbenzene	0.897	0.923	-2.9 112 $-2.7 115$	0,00
59 T	1,2,4-Trimethylbenzene	0.888	0,912	-2.7 115 11.0 99	0.00
60 T	1,3-Dichlorobenzene	0.608	0.541	11.0))	5.00

61 T 62 T 63 T 64 T 65 66 T	Benzyl Chloride 1,4-Dichlorobenzene 1,2-Dichlorobenzene 1,2,4-Trichlorobenzene Naphthalene Hexachloro-1,3-butadiene	0.773 0.336 0.561 0.084 0.100 0.206	0.749 0.314 0.540 0.080 0.094 0.196	6.0	107 108 105 117 115 112	0.00 0.00 0.00 0.00 0.00 0.02
65	Naphthalene	0.100	0.094	6.0	115	0.00

(#) = Out of Range 1001010.D 031424AI.M SPCC's out = 0 CCC's out = 0 Thu Apr 11 09:21:53 2024 6890 Data File : C:\HPCHEM\1\DATA\040324\0201002.D

Vial: 2 Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00 Acq On : 3 Apr 2024 5:29 pm : BFB/CCV 10PPBV Sample

: TO-15 ANALYSIS Misc

MS Integration Params: rteint.p Quant Results File: 031424AI.RES Quant Time: Apr 3 20:33 2024

Quant Method : $C:\HPCHEM\1\METHODS\031424AI.M$ (RTE Integrator)

: Method TO-15 CALIBRATION Title Last Update : Thu Mar 28 14:56:42 2024 Response via : Initial Calibration DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc Ur	its I	ev(Min
1) Bromochloromethane (IS)	9.28	128	161500	5.00	ppbv	
25) 1,4-Difluorobenzene (IS)	11.02	114	702786 616201	5.00	ppbv	0,00
45) Chlorobenzene-d5 (IS)	15.16	117	616201'	5.00	ppbv	0.00
System Monitoring Compounds	16 01	95	439850	4.93	pphy	0,0
56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ran	ge 62					
Target Compounds						Qvalue
2) Propylene	4.24	39	106435	8,85 9,48	ppbv	91
3) Dichlorodifluoromethane	4.34	85	844588			100
 Chloromethane 	4,59	50	233258	9.97		9 (9 (
5) Vinyl Chloride	4.87	62	257255	9.08		9:
6) 1,3-Butadiene	5.05	39	168722	10.74		91
7) Bromomethane	5,39	94	333819	9,93	pppy	98
8) Chloroethane	5.59	64	130584 322810	9,10		100
9) Vinyl Bromide	6,01	106				91
10) Trichlorofluoromethane	6,48	101	817273	10.03 9.49	hbpa	96
11) Acetone	6,21		499824			,
12) Isopropyl Alcohol (IPA)	6.42		384325m 491522			93
13) 1,1-Dichloroethene	7.13	61	283337	10,32		95
14) Methylene Chloride	7.22	84	203337	10.06		
15) Carbon Disulfide	7.60	76	888075 330619	10.32		95
16) trans-1,2-Dichloroethene	8.14	96 73	864252		nphv	
17) Methyl-tert-butyl ether	8.34	63	541388	9,94		" 99
18) 1,1-Dichloroethane	8,33 8,39	43	635611	10,31		
19) Vinyl Acetate	9,31	57	348276	10,35		98
20) N-Hexane	8,63	43	401997	10,10		
21) 2-Butanone (MEK)	9.11	61	371350	10,38		
22) cis-1,2-Dichloroethene	9.22	43	515683	10,28		
23) Ethyl Acetate 24) Chloroform	9,38	83	746114	10.68		97
24) Chloroform 26) Tetrahydrofuran	9,75	42	270991	10,00		8 9
27) 1,2-Dichloroethane	10.08	62	487622	9,03		98
28) 1,1,1-Trichloroethane	10,34	97	733591	9,03		97
29) 1,1-Dichloropropene	12,94	75	483736	8.40	ppbv	96
30) Carbon Tetrachloride	10.92	117	717495	9,42		98
31) Benzene	10.77	78	835926			96
32) Cyclohexane	11.05	56	495177	9,29		
33) 1,2-Dichloropropane	11.51		266694	10.08		92
34) Trichloroethene	11.71	95		9.96	ppbv	93
35) Bromodichloromethane	11,66	83	728277	9.72		99
36) 1,4-Dioxane	11,65	88	203548	9.61	opbv	90
37) Isooctane	11,75	57	1121947	10.07		99
38) N-Heptane	11.94	43	348889	9.91 յ		
39) cis-1,3-Dichloropropene	12,48	75	465563	9,83 j	opbv	
40) 4-Methyl-2-Penanone (MIBK)	12.47	43	475493	10,24 p		
41) trans-1,3-Dichloropropene	12,94	75	483736	9,59 p		96
	13.15	83	287615	9.06 p		98
	13,45	91	846787	9.84 p		
44) 2-Hexanone	13.59	43	564290	10.80 p		
46) Dibromochloromethane	13.86	129	654992	9.79 I		99
11) 1, 1 2 2 2 2 2 2 me = ()	14.11	107	573365	8,94 p		99
48) Tetrachloroethene	14,55	166	531165	8.83 p		93
	15.21	112	759370	9.18 p		96
00, 200, 200	15.55		1197673	9,85 p		0.0
51) m,p-Xylene	15,73		2181204	20.51 p		96 100
	1 5 0 5	172	£ £ 2 2 N N	U 41 F	DOM:	(11()
02, 22000	15,85 16.10	173 104	662200 670283	8.64 p 10.28 p		96

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\0201002.D

Vial: 2 Operator: TJG Inst : GC/MS Ins Acq On : 3 Apr 2024 5:29 pm Sample : BFB/CCV 10PPBV Misc : TO-15 ANALYSIS Multiplr: 1.00

MS Integration Params: rteint.p Quant Time: Apr 3 20:33 2024

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION

Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 28 14:56:42 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc Uni	t Qvalue
54) 1,1,2,2-Tetrachloroethane 55) o-Xylene 57) 4-Ethyltoluene 58) 1,3,5-Trimethylbenzene 59) 1,2,4-Trimethylbenzene 60) 1,3-Dichlorobenzene 61) Benzyl Chloride 62) 1,4-Dichlorobenzene 63) 1,2-Dichlorobenzene 64) 1,2,4-Trichlorobenzene 65) Naphthalene 66) Hexachloro-1,3-butadiene	16.19 16.23 17.59 17.68 18.20 18.43 18.38 18.51 18.97 21.55 21.76 22.30	83 106 105 105 105 146 91 148 146 180 128 225	764253 473751 1370795 1137534 1124244 667230 923328 386851 665599 98749 115298 242038	10.16 p 9.50 p 10.49 p 10.30 p 10.28 p 8.90 p 9.69 p 9.35 p 9.62 p 9.51 p 9.39 p	pbv 87 pbv 97 pbv 95 pbv 94 pbv 98 pbv 99 pbv 92 pbv 97 pbv

Page 2

Hexachloro-1,3-buladiene,T

Page 3

22.00

GC/MS QA-QC Check Report

Tune File : C:\HPCHEM\1\DATA\040324\0201002.D Tune Time : 3 Apr 2024 5:29 pm

Daily Calibration File : C:\HPCHEM\1\DATA\040324\0201002.D

			161500	702786	616201
File	Sample	Surrogate Recovery %	Internal	Standard	Responses
========= 0301003.D	LCS 10P	======================================	158057	699174	640363
0401004.D	LCSDD 10	94	131763	618784	539371
0501005.D	METHOD B	97	105838	529695	527321
0701001.D	24-1007	105	161163	713385	591243
0801002.D	24-998	98	158768	728874	623932
0901003.D	24-999	106	160606	722620	608003
1001004.D	24-1000	100	161409	708284	623757
1101005.D	24-1002	104	163155	734840	610403
1201006.D	24-1003	101	168221	734172	632053
1301007.D	24-1004	98	161100	731815	621865
1401008.D	24-1001	97	158192	750134	626762
1501009,D	24-1005	116	160093	763522	603124
1601010.D	24-1006	102	160107	514504	603017
1901015.D	24-1008:	107	153634	690523	579942

t - fails 24hr time check * - fails criteria

_Created: Fri Apr 12 00:30:21 2024 GC

MS Ins

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TO-15 VOC Quality Control Data

- Method Blank (MB)
- Laboratory Control Standard (LCS)

Vial: 3

Data File : C:\HPCHEM\1\DATA\040324\0301003.D
Acq On : 3 Apr 2024 6:14 pm
Sample : LCS 10PPBV Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

TO-15 ANALYSIS Misc MS Integration Params: rteint.p

Quant Results File: 031424AI.RES Quant Time: Apr 3 20:35 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator) Title : Method TO-15 CALIBRATION

Last Update : Thu Mar 28 14:56:42 2024
Response via : Initial Calibration

DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc U	nits I	Dev(Min)
1) Bromochloromethane (IS)	9.28	128	158057		ppbv	
25) 1,4-Difluorobenzene (IS)	11.03		699174		ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.16	117	640363	5.00	ppbv	0,00
System Monitoring Compounds	16.71	95	476821	5.15	ppbv	0.00
56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Rar	ige 62			гу =		0%
Target Compounds					,	Qvalue
2) Propylene	4.24	39	108764		ppbv ppbv	9 8 9 9
3) Dichlorodifluoromethane	4,34 4,59	85 50	868561 230361	10,06		100
4) Chloromethane	4,39	62	273186		ppbv	99
5) Vinyl Chloride 6) 1,3—Butadiene	5.04	39	161969	10.54		
7) Bromomethane	5.40	94	347630	10.57	ppbv	94
8) Chloroethane	5,59	64	139784		ppbv	98
9) Vinyl Bromide	6,01	106	324426	10.34		98
10) Trichlorofluoromethane	6.47	101	849266	10,65		99
11) Acetone	6.22	43	529664	10,27	ppbv	# 98
12) Isopropyl Alcohol (IPA)	6.42	45	340714		ppbv	95
13) 1.1-Dichloroethene	7.13	61	490562	10,53 10,67		93
14) Methylene Chloride	7,22	84 76	289393 835212		ppbv	, , ,
15) Carbon Disulfide	7.60 8.14	96	333115	10,63		93
16) trans-1,2-Dichloroethene 17) Methyl-tert-butyl ether	8.34	73	890460		ppbv	_
18) 1,1-Dichloroethane	8.33	63	540034	10.13		99
19) Vinyl Acetate	8,39	43	640713	10.62		
20) N-Hexane	9.31	57	336279	10.21		97
21) 2-Butanone (MEK)	8.63	43	375755		ppbv	
22) cis-1,2-Dichloroethene	9,11	61	346778		ppbv	
23) Ethyl Acetate	9.22	43	489581		bbpv	
24) Chloroform	9,38	83	654064	9,57		89
26) Tetrahydrofuran	9.75	42	280422	10,40		97
27) 1,2-Dichloroethane	10,08	62	492673 735618	9.17 9.11		99
28) 1,1,1-Trichloroethane	10.35	97 75	504631		ppbv	
29) 1,1-Dichloropropene	12,95 10,92	117	734017	9.69		100
30) Carbon Tetrachloride 31) Benzene	10,52	78	834309	10,08		96
32) Cyclohexane	11.05	56	497690	9.39		
33) 1,2-Dichloropropane	11.50	63	275421	10.47	ppbv	90
34) Trichloroethene	11.71	95	430069	10,40		93
35) Bromodichloromethane	11.67	83	726168	9.75		98
36) 1,4-Dioxane	11.66	88	201833	9,58		89
37) Isooctane	11,75	57	1127809	10,17		# 96
38) N-Heptane	11.94	43	371663	10,61		
39) cis-1,3-Dichloropropene	12.48	75	476451	10.11 9.78		
40) 4-Methyl-2-Penanone (MIBK)	12.47	43 75	452130 504631	10.06		97
41) trans-1,3-Dichloropropene	12,95 13,15	83	311209	9,85		98
42) 1,1,2-Trichloroethane 43) Toluene	13,45	91	879780	10.27		
44) 2-Hexanone	13.59	43	570787	10.98		95
46) Dibromochloromethane	13.86	129	684499	9.84		99
47) 1,2-Dibromoethane (EDB)	14.11	107	605663	9.08	ppbv	99
48) Tetrachloroethene	14.55	166	565628	9.05	ppbv	97
49) Chlorobenzene	15,20	112	815017	9,48		97
50) Ethylbenzene	15.55		1247375m	9.87		0.5
51) m,p-Xylene	15,72		2219380	20.09		97
52) Bromoform	15,85	173 104	680888 723110	8,55 10,67		99 97
53) Styrene	16,11					

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\0301003.D

6;14 pm

Acq On : 3 Apr 2024 6 Sample : LCS 10PPBV Misc : TO-15 ANALYSIS Misc

MS Integration Params: rteint.p Quant Time: Apr 3 20:35 2024

Vial: 3

Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 28 14:56:42 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

54) 1.1.2.2-Tetrachloroethane 16.19 83 789294 10.10 ppbv	98
55) o-Xylene 16.23 106 504558 9.73 ppbv 57)'4-Ethyltoluene 17.59 105 1441018 10.62 ppbv 58) 1,3,5-Trimethylbenzene 17.68 105 1171316 10.20 ppbv 59) 1,2,4-Trimethylbenzene 18.20 105 1162969 10.23 ppbv 60) 1,3-Dichlorobenzene 18.43 146 680559 8.74 ppbv 61) Benzyl Chloride 18.38 91 906368 9.16 ppbv 62) 1,4-Dichlorobenzene 18.51 148 413803 9.63 ppbv 63) 1,2-Dichlorobenzene 18.97 146 699063 9.73 ppbv 64) 1,2,4-Trichlorobenzene 21.55 180 102601 9.51 ppbv 65) Naphthalene 21.75 128 120061 9.41 ppbv 66) Hexachloro-1,3-butadiene 22.30 225 253269 9.58 ppbv	89 96 95 96 97 100 92 99

Quant Results File: 031424AI.RES

Vial: 3 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

Data File: C:\HPCHEM\i\DATA\040324\0301003.D
Acg On : 3 Apr 2024 6:14 pm
Sample : LCS 10PPBV
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 3 20:35 2024 Qua

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Data File : C:\HPCHEM\1\DATA\040324\0401004.D
Acq On : 3 Apr 2024 6:59 pm
Sample : LCSDD 10PPBV Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00 : TO-15 ANALYSIS Misc

MS Integration Params: rteint.p Quant Time: Apr 11 9:24 2024

Quant Results File: 031424AI.RES

Vial: 4

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION

Last Update : Thu Mar 28 14:56:42 2024 Response via : Initial Calibration

DataAcq Meth : ENTECH1

Internal Standards		QIon	Response	Conc U	nits	Dev(M	in)
1) Bromochloromethane (IS)	9.28	128	131763 618784	5.00	ppbv	. 0	.00
25) 1,4-Difluorobenzene (IS)	11,02	114	618784	5,00	ppbv	0	,00
45) Chlorobenzene-d5 (IS)	15.17	117	539371	5,00	ppbv	· U	.00
System Monitoring Compounds		0.5	25.40.20	1 60	nnhu		.00
56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ray	16.72	95 _ 145	364932 Recove	4,60 rv =	ррБV 93.	60%	
Spiked Amount 5.000 Ran	ige oz	1 1 1 3 3	1.0001	- 1		01	
Target Compounds		20	01260	9,30	nnhu	Qval	ue
2) Propylene	4.24	39 85	91260 727084	10.00			
3) Dichlorodifluoromethane	4.34 4.59	50	183582	9.62			
4) Chloromethane 5) Vinyl Chloride	4.87	62	219628				
	r 0.4	2.0	113404	8.85	ppbv		
6) 1.3-Butadiene 7) Bromomethane 8) Chloroethane	5.41	94	247700				
8) Chloroethane	5.61	64	101273	8.65			
a) AttiAt promite	0,01		245677	9.40			
10) Trichlorofluoromethane	6.48	101	664407	10.00			
11) Acetone	6.23	43	416233 311592	9,68 10,24			
12) Isopropyl Alcohol (IPA)	6,43 7,13	45 61	422559	10.88			98
13) 1,1-Dichloroethene	7,13	84	233013	10,31			
14) Methylene Chloride 15) Carbon Disulfide	7.61	76	736337	10,22			
16) trans-1,2-Dichloroethene	8.14	96	257777	9.87			
17) Methyl-tert-butyl ether	8,35	73	616695	8,80			
18) 1,1-Dichloroethane	8,34	63	421253	9,48			
19) Vinyl Acetate	8,39	43	481941	9,58			98
20) N-Hexane	9,31	57	298836	10.88 10.04			50
21) 2-Butanone (MEK)	8.64	43	326162 303276	10.40			
 /	9.11 9.23	61 43	420358	10.27			
23) Ethyl Acetate 24) Chloroform	9,38	83	573167	10.06			
26) Tetrahydrofuran	9.75	42	228708	9.58			90
27) 1,2-Dichloroethane	10.08	62	458964	9,66			
28) 1,1,1-Trichloroethane	10.36	97	652696	9,13			
29) 1,1-Dichloropropene	12,95	75	486821	9.60			99
30) Carbon Tetrachloride	10,92	117	637101	9,50			97
31) Benzene	10,78	78	707128	9,66 9,86			71
32) Cyclohexane	11.05	56	462882	9 74	Adad		94
33) 1,2-Dichloropropane	11,51 11,72	9.5	226873 372653	10,18	vdgg		94
34) Trichloroethene 35) Bromodichloromethane	11.72	83	629006	9.54	ppbv		98
36) 1,4-Dioxane	11,66	88	176132	9.44	ppbv		91
37) Isooctane	11.76	57	994122	10.13	ppbv	#	96
38) N-Heptane	11.95	43	319959	10.32	ppbv		
39) cis-1,3-Dichloropropene	12,48	75	414263	9.93			
40) 4-Methyl-2-Penanone (MIBK)	12.47	43	425019	10,39 9,98			98
41) trans-1,3-Dichloropropene	12,95	75	443223	9,30			99
42) 1.1.2-Trichloroethane	13,16	83 91	259103 773257m	10,20			
43) Toluene	13,45 13,60	43	499090	10,85			96
44) 2-Hexanone 46) Dibromochloromethane	13.86	129	608465	10.39			98
46) Dibromochloromethane 47) 1,2-Dibromoethane (EDB)	14.12	107	528449	9.41			99
48) Tetrachloroethene	14.55	166	498774	9.47			97
49) Chlorobenzene	15.21	112	703733	9.72			96
50) Ethylbenzene	15.56		1106721	10.40			
51) m.p-Xylene	15,73		1944467	20,89	pppv		99
52) Bromoform	15,86	173		9,44 10,30			ر ر
53) Styrene	16,10	104	587769 	TO.30	 F. F. F		
12.63							

(QT Reviewed) Quantitation Report

Vial: 4 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00 Data File : C:\HPCHEM\1\DATA\040324\0401004.D
Acq On : 3 Apr 2024 6:59 pm
Sample : LCSDD 10PPBV
Misc : TO-15 ANALYSIS

MS Integration Params: rteint.p

Quant Results File: 031424AI.RES Quant Time: Apr 11 9:24 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator) Title : Method TO-15 CALIBRATION

Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 28 14:56:42 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane 55) o-Xylene 57) 4-Ethyltoluene 58) 1,3,5-Trimethylbenzene 59) 1,2,4-Trimethylbenzene 60) 1,3-Dichlorobenzene 61) Benzyl Chloride 62) 1,4-Dichlorobenzene 63) 1,2-Dichlorobenzene 64) 1,2,4-Trichlorobenzene 65) Naphthalene	16.19 16.23 17.60 17.68 18.20 18.43 18.39 18.52 18.97 21.56	83 106 105 105 105 146 91 148 146 180 128	655385 449856 1197155 996092 943897 632464 863019 380979 626958 91741 109184 228519	9.96 ppbv 10.30 ppbv 10.47 ppbv 10.30 ppbv 9.86 ppbv 9.64 ppbv 10.35 ppbv 10.53 ppbv 10.53 ppbv 10.56 ppbv 10.16 ppbv 10.16 ppbv	97 99 94 98
66) Hexachloro-1.3-butadiene	22,30	225	220019	10,27 ppbv	

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\langle LDATA\040324 24 6:59 pm PBV LYSIS : rteint.p :24 2024 HEM\1\METHODS\ TO-15 CALIBRA I 17 18:31:02	S Carbon Disulfide, T	
C:\HPCHEM\1\DATA\040324\040100 3 Apr 2024 6:59 pm LCSDD 10PPBV TO-15 ANALYSIS on Params: rteint.p Apr 11 9:24 2024 : C:\HPCHEM\1\METHODS\031424A : Method TO-15 CALIBRATION : Sun Mar 17 18:31:02 2024 : Initial Calibration	T, ans rish the Marketh and its first of the strain of the	
C:\HPCHEM\1 3 Apr 2024 1CSDD 10PPE TO-15 ANALY ion Params: Apr 11 9:2 Apr 11 9:2 Apr 11 9:2 Sun Mar Sun Mar 3 : Initial	T, and the model of the model o	
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ta File: mple: sc Integrat ant Time: thod tle st Update sponse vi	T.epryle Dichlorodifluoromethane, T.	
Data File: C Acq On Sample in I Misc No Integratio Quant Time: A Method Title Last Update Last Update Response via	3400000 3200000 2800000 2400000 2200000 1400000 1200000 1200000 1200000 1000000 800000 600000 600000	

Page 3

(QT Reviewed) Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\0501005.D

Vial: 5 Operator: TJG Inst : GC/MS Ins Acq On : 3 Apr 2024
Sample : METHOD BLANK
Misc : TO-15 ANALYSIS 7:41 pm Multiplr: 1.00

MS Integration Params: rteint.p

Quant Results File: 031424AI.RES Quant Time: Apr 11 9:21 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9,28 128 11.02 114 15.15 117	105838 529695 527321	5.00 ppbv 0.00 5.00 ppbv 0.00 5.00 ppbv 0.00
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ran	16,70 95 nge 62 – 14!	369791 5 Recove	4.85 ppbv 0.00 ry = 97.00%

Target Compounds

Ovalue

6890



TO-15 VOC

• Raw Sample Data

(OT Reviewed) Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\0801002.D

Acq On : 3 Apr 2024 9:43 pm Sample : 24-998

Misc : TO-15 ANALYSIS

Quant Time: Apr 12 0:18 2024

MS Integration Params: rteint.p

Vial: 8
Operator: TJG
Inst : GC/MS Ins

Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator) Title : Method TO-15 CALIBRATION

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1.4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9.27 128 11.02 114 15.16 117	158768 728874 623932	5.00 ppbv 0.00 5.00 ppbv 0.00 5.00 ppbv 0.00
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ran	16.71 95 ige 62 – 145	442545 5 Recove	4.90 ppbv 0.00 ry = 98.00%

Target Compounds

Qvalue

vial: 8 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

Data File: C:\HPCHEM\l\DATA\040324\0801002.D
Acq On: 3 Apr 2024 9:43 pm
Sample: 24-998
Misc: TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:18 2024

Quant Results File: 031424AI.RES

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Integrato	TIC: 0801002.D	əuəzuəqi	on on the second		o-auazuar	СЏјогор	-4-Difluore	·i —								and the state of t	11.00 12.00 13.00 14.00 15.00 16.00	24 6890
C:\text{LECHEM\1\text{METHODS\031424AI.M} (RIE): Method TO-15 CALIBRATION: Sun Mar 17 18:31:02 2024 Trifial Calibration	. Illitatar Carrottavacon) anedian	nochloron	lona	-					6.00 7.00 8.00 9.00 10.00	031424AI.M Fri Apr 12 00:30:53 2024
Method Title Last Update	Abundance	1500000	1400000	1300000	1200000	1100000	1000000	000006	000008	700000	000009	200000	400000	300000	200000	90 00 00 87 of 130	Time-> 4.00 5.00	0801002.D 0314

(QT Reviewed) Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\0901003.D

Acq On

Vial: 9 Operator: TJG : 3 Apr 2024 10:27 pm : 24-999 Inst : GC/MS Ins

Sample Multiplr: 1.00 ; TO-15 ANALYSIS Misc

MS Integration Params: rteint.p Quant Results File: 031424AI.RES Quant Time: Apr 12 0:19 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9.26 128 11.01 114 15.15 117	160606 722620 608003	5.00 ppbv 0.00 5.00 ppbv 0.00 5.00 ppbv 0.00
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ran	16.70 95 ge 62 - 145	467180 Recove	5.31 ppbv 0.00 ry = 106.20%
Target Compounds 26) Tetrahydrofuran	9,74 42	104081	Qvalue 3.73 ppbv 87

6890

Page 2

6890

Fri Apr 12 00:30:56 2024

031424AI.M

0901003.D

22.00

21.00

(QT Reviewed) Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\1001004.D

Vial: 10 Operator: TJG Acq On : 3 Apr 2024 11:11 pm

Sample : 24-1000 Inst : GC/MS Ins

: TO-15 ANALYSIS Misc

Multiplr: 1.00

MS Integration Params: rteint.p Quant Time: Apr 12 0:19 2024

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T. Q	lon	Response	Conc Units Dev	v(Min)
1) Bromochloromethane (IS) 25) 1.4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9.26 11.01 15.14	114	161409 708284 623757	5.00 ppbv 5.00 ppbv 5.00 ppbv	0.00 -0.01 -0.02
System Monitoring Compounds				4 00 nphu	0 02

System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR 16.69 95 449532 4.98 ppbv -0.02 5.000 Range 62 - 145 Recovery = 99.60% Spiked Amount

Target Compounds

Qvalue

Page

6890

Fri Apr 12 00:30:59 2024

1001004.D 031424AI.M

22,00

21.00

(OT Reviewed) Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\1401008.D

Vial: 14 Operator: TJG Inst : GC/MS Ins : 4 Apr 2024 2:06 am Acq On 24-1001 Sample Multiplr: 1.00

: TO-15 ANALYSIS Misc MS Integration Params: rteint.p Quant Time: Apr 12 0:23 2024

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Method TO-15 CALIBRATION Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T. Q	Ion	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS)	9.26	114	158192	5.00 ppbv 0.00
25) 1,4-Difluorobenzene (IS)	11.01		750134	5.00 ppbv 0.00
45) Chlorobenzene-d5 (IS)	15.15		626762	5.00 ppbv -0.01

System Monitoring Compounds

56) 4-Bromofluorobenzene (SURR 16.70 95 439548 4.85 ppbv 5.000 Range 62 - 145 Recovery = 97.00% Spiked Amount

Target Compounds

Qvalue

Page 1

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6890

Fri Apr 12 00:31:05 2024

031424AI.M

1401008.D

22.00

(QT Reviewed) Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\1101005.D

Vial: 11 Operator: TJG : 3 Apr 2024 11:54 pm : 24-1002 Acq On

Sample

Inst : GC∕MS Ins

6890

; TO-15 ANALYSIS Misc

Multiplr: 1,00

MS Integration Params: rteint.p Quant Time: Apr 12 0:20 2024

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator) Title : Method TO-15 CALIBRATION

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9.26 128 11.01 114 15.15 117	734840	5.00 ppbv 0.00 5.00 ppbv 0.00 5.00 ppbv -0.01
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Rar	16.69 95 ige 62 - 14		5.19 ppbv -0.02 ry = 103.80%
Target Compounds 26) Tetrahydrofuran 48) Tetrachloroethene	9,73 42 14.53 166		Qvalue 4.24 ppbv 91 4.31 ppbv 95

Vial: 11 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

Data File: C:\HPCHEM\1\DATA\040324\1101005.D
Acq On: 3 Apr 2024 11:54 pm
Sample: 24-1002
Misc: TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:20 2024
Quant Qua

Quant Results File: 031424AI.RES

	!
Method Title Last Update	C:\HPCHEM\1\METHODS\031424A1.M (KIE Integrator) Method TO-15 CALIBRATION Sun Mar 17 18:31:02 2024
Response V12 Abundance	
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1101005.D 031	031424AI.M Fri Apr 12 00:31:09 2024 6890

(QT Reviewed) Quantitation Report

Vial: 12

Inst : GC/MS Ins Multiplr: 1.00

Operator: TJG

Data File : C:\HPCHEM\1\DATA\040324\1201006.D

Acq On : 4 Apr 2024 12:38 am Sample : 24-1003 Misc : TO-15 ANALYSIS

Misc

MS Integration Params: rteint.p

Quant Results File: 031424AI.RES Quant Time: Apr 12 0:22 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024

Response via : Initial Calibration DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc Ur	nits D	ev(Min)
1) Bromochloromethane (IS) 25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9.26 11.01 15.15	128 114 117	168221 734172 632053	5.00	ppbv ppbv ppbv	-0.01 -0.01 -0.01
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ran	16.70 ige 62	95 - 145	459658 Recove		ppbv 100.6	
Target Compounds 26) Tetrahydrofuran 31) Benzene 48) Tetrachloroethene 50) Ethylbenzene	9.74 10.76 14.53 15.53	42 78 166 91	128641 19877 127776 34032	0.23 2.07	ppbv ppbv ppbv ppbv	

Vial: 12 Operator: 126 Inst PIG Inst Nultiplr: 1.00 Quant Results File: 031424AI.E RATION RATION RATION Total (9), T Tetrahydrohusn, T Tetrahydrohusn, T Total (100) Total (1		S.(F	라키나라) ənəznədc			AAAA SAAA AAAA AAAA AAAA AAAA AAAA AAA				Ţ,ən	Еџулјрепхе	0 16.00 17.00 18.00 19.00 20.00 21.00 22.00	
SN 031424AI.M PATION 2 2024 In Bromochitoromethane (15), T Tetrahydrofuran, T 9.00 110.00	Vial: Operator: Inst Multiplr: Results File: IE Integrator)	TIC: 1201006.D	i,(21) čb- a ne	nedozoulli(G-Þ, i			T, ans	htteorolitos	гдө⊥ -		Т, опъзгле (11.00 12.00 13.00	2024
Data Fill Acq On Sample Misc MS Integrant Title Quant Title Last Up Response 1300000 1300000 1300000 1300000 1000000	le : C:\tPCHEM\1\DATA\040324\1201006.D : 4 Apr 2024 12:38 am : 24-1003 : TO-15 ANALYSIS gration Params: rteint.p :lme: Apr 12 0:22 2024 : C:\tPCHEM\1\mETHODS\031424AI.M : Method TO-15 CALIBRATION odate : Sun Mar 17 18:31:02 2024	 (I)			T,(2	t) ensdiemot	Bromochio		T, ne suìonò	үйвлөт		6.00 8.00 9.00	031424AI.M Fri Apr 12 00:31:12

Page 2

(OT Reviewed) Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\1301007.D

: 4 Apr 2024 1:22 am Acq On

: 24-1004

: TO-15 ANALYSIS

MS Integration Params: rteint.p Quant Time: Apr 12 0:22 2024

Vial: 13 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

Quant Results File: 031424AI.RES

6890

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Sample

Misc

Internal Standards	R.T. QI	on Response	Conc Units Dev(Min)
1) Bromochloromethane (IS)	11.01	128 161100	5.00 ppbv 0.00
25) 1,4-Difluorobenzene (IS)		114 731815	5.00 ppbv 0.00
45) Chlorobenzene-d5 (IS)		117 621865	5.00 ppbv 0.00
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ran	16.70	95 440273	4.89 ppbv 0.00
	ge 62 —	145 Recov	ery = 97.80%
Target Compounds 26) Tetrahydrofuran	9.74	42 65811	Qvalue 2.33 ppbv # 88

Vial: 13 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

Data File: C:\HPCHEM\1\DATA\040324\1301007.D
Acq On: 4 Apr 2024 1:22 am
Sample: 24-1004
Misc: TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:22 2024

Quant Results File: 031424AI.RES

TIC: 1301007.D

0

Vial: 15 Operator: TJG

6890

Inst : GC/MS Ins Multiplr: 1.00

Data File : C:\HPCHEM\1\DATA\040324\1501009.D

Acq On : 4 Apr 2024 2:51 am Sample : 24-1005

Misc : TO-15 ANALYSIS

MS Integration Params: rteint.p Quant Time: Apr 12 0:26 2024 Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

22.00				
Internal Standards	R.T. Ç)Ion	Response (Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1.4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	11.01	128 114 117	160093 763522 603124	5.00 ppbv 0.00 5.00 ppbv 0.00 5.00 ppbv 0.00
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5,000 Ran	16.70 gө 62 -	95 - 145	507949 Recover	5.82 ppbv 0.00 y = 116.40%
Target Compounds 26) Tetrahydrofuran	9.75	42	68319	Qvalue 2.32 ppbv # 87

Vial: 15 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

Data File: C:\HPCHEM\1\DATA\040324\1501009.D
Acq On: 4 Apr 2024 2:51 am
Sample: 24-1005
Misc: TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:26 2024
Quant Tax

Quant Results File: 031424AI.RES

Integrator)	TIC: 1501009.D	୫'(ଧଧ∩୫) ଶ ।'(୫	nuəzueqo.o											Ma Waran		6890 Page 2
C:\HPCHEM\l\mETHODS\031424AI.M (RTE) Method TO-15 CALIBRATION Sun Mar 17 18:31:02 2024 : Initial Calibration	Clarification of the control of the		T,(2l) e	мореихен	oplid-∳,†		T.(ĈI) ensril	emotolifoo	Вгоп			T, ne iuìo it	Tetrahyo		5.00 6.00 7.00 8.00 9.00 10.00 11.00	031424AI.M Fri Apr 12 00:31:27 2024
Method Title Last Update Response via	Abundance	1300000	1200000	1100000	1000000	000006	800000	700000	000009	500000	400000	300000	200000	00000 101 of 130	Time> 4.00	1501009.D

Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\1601010.D

Acq On : 4 Apr 2024 3:37 am Sample : 24-1006

Misc : TO-15 ANALYSIS

MS Integration Params: rteint.p

Quant Time: Apr 12 0:27 2024

Ouant Results File: 031424AI.RES

6890

Vial: 16

Inst : GC/MS Ins Multiplr: 1.00

Operator: TJG

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration

DataAcq Meth : ENTECH1

R.T. QIon Response Conc Units Dev(Min) Internal Standards 1) Bromochloromethane (IS) 9.26 128 160107 5.00 ppbv 0.00 25) 1,4-Difluorobenzene (IS) 11.01 114 514504 5.00 ppbv 0.00 45) Chlorobenzene-d5 (IS) 15.15 117 603017 5.00 ppbv -0.01 25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)

System Monitoring Compounds

56) 4-Bromofluorobenzene (SURR 16.70 95 442983 5.08 ppbv 0.00 Spiked Amount 5.000 Range 62 - 145 Recovery = 101.60%

Target Compounds

Ins AI.RES	. S.	I,(은I) 라-en: (되되니은) enexne	-Вго пл оїцьго р										and the second that the second the sec	15.00 16.00 17.00 18.00 19.00 20.00 21.00 22.00	Page 2
16 GC/MS Ins 1.00 031424AI.RES	TIC: 1601010.D													00 14.00	
Vial: Operator: Inst Multiplr: sults File: Integrator)	TIC: 1													12.00 13.00	0689
ant Re (RTE					Т.(ЗІ) епэ	Miluotobenz	□- Þ'l							10.00 11.00	36 2024
4\1601010 \031424AI ATION 2024						T.(2t) ənı	នវៀទកោលលៅក	эошолд	w		₹** anv.		}	9.00	12 00:31:36
ATA\04032\ 3:37 am 53:37 am 53:37 am 1 and 1.P 2024 11 METHODS 118:31:02	10198													8.00	Fri Apr
Data File: C:\HPCHEM\1\DATA\040324\1601010.D\ Acq On : 4 Apr 2024 3:37 am Sample : 24-1006 Misc : TO-15 ANALYSIS MS Integration Params: rteint.p\ Quant Time: Apr 12 0:27 2024 Method : C:\HPCHEM\1\METHODS\031424AI.M\ Title : Method TO-15 CALIBRATION Last Update : Sun Mar 17 18:31:02 2024	ווד רומד כם													6.00 7.00	M. IAI
: C:\HPCHE : 4 Apr 2 : 24-1006 : TO-15 Avr ration Param ne: Apr 12 : C:\HE : Metho									· · · · · · · · · · · · · · · · · · ·	<u></u>				2.00	031424AI.M
Data File: Acq On Sample Misc MS Integrat: Quant Time: Method Title Last Update	Abundance	1300000	1100000	1000000	000006	800000	700000	000009	200000	400000	300000	200000	00000000000000000000000000000000000000	Time> 4.00	1601010.D

Data File : C:\HPCHEM\1\DATA\040324\0701001.D

Vial: 7 Operator: TJG Inst : GC/MS Ins 9:00 pm

Acq On : 3 Apr 2024 Sample : 24-1007 OA
Misc : TO-15 ANALYSIS Multiplr: 1,00

MS Integration Params: rteint.p Quant Time: Apr 12 0:17 2024

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

: Method TO-15 CALIBRATION Title Last Update : Thu Mar 28 14:56:42 2024 Response via : Initial Calibration

DataAcq Meth : ENTECH1

R.T. QIon Response Conc Units Dev(Min) Internal Standards 1) Bromochloromethane (IS) 9.27 128 161163 5.00 ppbv 0.00 25) 1.4-Difluorobenzene (IS) 11.01 114 713385 5.00 ppbv 0.00 45) Chlorobenzene-d5 (IS) 15.15 117 591243 5.00 ppbv -0.01

System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR 16.69 95 446930 5.23 ppbv -0.02 Spiked Amount 5.000 Range 62 - 145 Recovery = 104.60%

Target Compounds

Ø Page 22,00 21.00 20,00 19.00 18.00 17,00 S.(되저니오) anaxnadotouflomotB-M 16.00 15.00 Chlorobenzene-d5 (IS),1 14.00 13.00 6890 12.00 11.00 Fri Apr 12 00:31:45 2024 T,(2l) eneznadorouli(0-4,f 10.00 9.00 Promochloromethane (IS),T 8.00 7.00 9.00 031424AI.M 5.00 0701001.D 4.00 000 105 of 130 200000 300000 -000009 500000 400000 700000 1200000 1000000 900000 800000 1100000 Time....>

Data File : C:\HPCHEM\1\DATA\040324\1901015.D

7:04 am

Vial: 19 Operator: TJG Inst : GC/MS Ins : 4 Apr 2024 : 24-1008:10 : TO-15 ANALYSIS Acq On Sample Multiplr: 1.00

Misc MS Integration Params: rteint.p

Quant Results File: 031424AI.RES Quant Time: Apr 12 0:28 2024

Quant Method: C:\HPCHEM\1\METHODS\031424AI,M (RTE Integrator)
Title: Method TO-15 CALIBRATION
Last Update: Sun Mar 17 18:31:02 2024 Response via : Initial Calibration DataAcq Meth : ENTECH1

Data			
Internal Standards	R.T. QI	on Response	Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9.26 13 11.01 13 15.15 1		5.00 ppbv -0.01 5.00 ppbv -0.01 5.00 ppbv -0.01
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ran	16.70 ge 62 -	95 448127 145 Recove	5.34 ppbv 0.00 ry = 106.80%
Target Compounds 48) Tetrachloroethene	14.53 1	66 982986	Qvalue 17.37 ppbv 94

																	A 6.	19.00 20.00 21.00 22.00	Page
								8'	(ଧଧନର) ୧	орви х еис	noultomo	6 8-⊅				-		16.00 17.00 18.00	
Vial: 19 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00 Results File: 031424AI.RES	Integrator)	TIC: 1901015.D	T,4	anerfleore	olfonyl o T					r(si) <u>(</u>	Sp-əuəzu	Chlorobe						12.00 13.00 14.00 15.00	6890
0324\1901015.D am Quant	.031424AI.M (RTE ATION 2024									T.(&	şį) əuəzu	T,(2l) en		ohiooma	JB		The state of the s	7.00 8.00 9.00 10.00 11.00	Fri Apr 12 00:31:58 2024
Data File: C:\HPCHEM\1\DATA\04 Acq On: 4 Apr 2024 7:04 Sample: 24-1008:10 Misc: TO-15 ANALYSIS MS Integration Params: rteint.p Quant Time: Apr 12 0:28 2024	Method : C:\HPCHEM\1\METHODS\ Title : Method TO-15 CALIBRA Last Update : Sun Mar 17 18:31:02 Response via : Initial Calibration		000000000000000000000000000000000000000	2800000	2600000	2400000	2200000	2000000	1800000	1600000	1400000	1200000	1000000	800000	000009	400000	000 000 000 000 000 000 000 000 000 00	00 9:00 0:00	15.D 031424A

Page 2



TO-15 Certified Canister

• Cleaned Canister Verification Data

Vial: 64

Data File : C:\HPCHEM\1\DATA\032124\6401015.D

Acq On

Operator: TJG : 23 Mar 2024 10:03 am : CSI-11089 : TO-15 ANALYSIS Inst : GC/MS Ins Multiplr: 1.00

Misc MS Integration Params; rteint.p

Quant Results File: 031424AI.RES Quant Time: Apr 17 13:20 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration

DataAcq Meth : ENTECH1

Sample

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9.29 128 11.02 114 15.16 117	152681 652440 535365	5.00 ppbv 0.02 5.00 ppbv 0.00 5.00 ppbv 0.00
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ran	16.71 95 ige 62 - 145	401249 S Recove	5.18 ppbv 0.00 ry = 103.60%

Target Compounds

Data File: C:\HPCHEM\1\DATA\032124\6401015.D
Acg On: 23 Mar 2024 10:03 am
Sample: CSI-11089
Misc: TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:20 2024

C:\text{C:ChPCHEM\I\METHODS\031424AI.M} (RTE Integrator)
Method TO-15 CALIBRATION
Sun Mar 17 18:31:02 2024
Initial Calibration Method Title Last Update

Quant Results File: 031424AI.RES

Ø Page 22.00 21.00 20,00 19.00 18.00 17,00 은,(되저US) eneznedotoullemen8-P 16.00 15.00 Chlorobenzene-d5 (IS),1 14,00 TIC: 6401015.D 13,00 6890 12.00 11.00 Wed Apr 17 13:22:19 2024 T,(St) enexnedoroulitQ-4,t 10.00 T,(SI) ensthemorphomorb 9.00 8.00 7.00 9.00 031424AI.M 5.00 Response via 6401015.D 4.00 000 01 110 of 130 300000 200000 Abundance 1100000 400000 600000 500000 700000 1000000 900000 800000 个。

Vial: 65 Data File : C:\HPCHEM\1\DATA\032124\6501016.D Operator: TJG : 23 Mar 2024 10:45 am Acq On : GC/MS Ins Inst

: CSI-10025 Sample Misc

: TO-15 ANALYSIS

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Results File: 031424AI.RES Quant Time: Apr 17 13:21 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9.30 128 11.04 114 15.17 117	152183 629540 559041	5.00 ppbv 0.02 5.00 ppbv 0.02 5.00 ppbv 0.01
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Rar	16.72 95 nge 62 - 145	404548 Recove	5.00 ppbv 0.00 ry = 100.00%

Target Compounds

Vial: 65 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

Data File: C:\HPCHEM\1\DATA\032124\6501016.D
Acq On: 23 Mar 2024 10:45 am
Sample: CSI-10025
Misc: TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:21 2024

Quant Results File: 031424AI.RES

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Data File : C:\HPCHEM\1\DATA\032124\6601017.D

Vial: 66 Operator: TJG ; 23 Mar 2024 11:27 am Acq On

: GC/MS Ins Inst : CSI-11068 Sample Multiplr: 1.00 : TO-15 ANALYSIS Misc

MS Integration Params: rteint.p Quant Results File: 031424AI.RES Quant Time: Apr 17 13:21 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION Last Update : Sun Mar 17 18:31:02 2024

Response via : Initial Calibration

DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc Units Dev(M	in)
1) Bromochloromethane (IS) 25) 1.4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9.29 11.03 15.16	114	147764 599477 530924	5.00 ppbv 0	0.02 0.01 0.00
System Monitoring Compounds	17 71	0.5	396063	5 03 nnbv (0.00

penzene (SURR 16.71 95 386063 5.03 ppbv 5.000 Range 62 - 145 Recovery = 100.60% 56) 4-Bromofluorobenzene (SURR 16.71 95 Spiked Amount

Target Compounds

Ovalue

Quantitation Report

Page

22,00

Data File : C:\HPCHEM\1\DATA\032124\6701018.D

Vial: 67 Operator: TJG

Acq On : 23 Mar 2024 12:08 pm Sample : CSI-11074 Misc : TO-15 ANALYSIS

; GC∕MS Ins Inst Multiplr: 1.00

MS Integration Params: rteint.p Quant Time: Apr 17 13:21 2024

Quant Results File: 031424AI RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration

DataAcq Meth : ENTECH1

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS)	9.28 128	145156	5.00 ppbv 0.00
25) 1,4-Difluorobenzene (IS)	11.02 114	618706	5.00 ppbv 0.00
45) Chlorobenzene-d5 (IS)	15.16 117	537186	5.00 ppbv 0.00
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ran	16.71 95	388733	5.00 ppbv 0.00
	gө 62 — 145	Recove	ry = 100.00%

Target Compounds

Vial: 67 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

Data File: C:\text{CHEM\lambda}\text{12124\6701018.D}
Acq On: 23 Mar 2024 12:08 pm
Sample: CSI-11074
Misc: TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:21 2024

Quant Results File: 031424AI.RES

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Quantitation Report

(QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032424\0601006.D

: 24 Mar 2024 1:21 pm : CSI-84046-BATCH : TO-15 ANALYSIS Sample Misc

Vial: 6 Operator: TJG

Inst : GC/MS Ins

MS Integration Params: rteint.p Quant Time: Apr 17 13:23 2024

Multiplr: 1.00 Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024

Response via : Initial Calibration

DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc Units Dev	/(Min)
1) Bromochloromethane (IS) 25) 1.4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9,29 11.03 15.17	114	133332 650502 634373	5.00 ppbv 5.00 ppbv 5.00 ppbv	$ \begin{array}{c} 0.02 \\ 0.01 \\ 0.00 \end{array} $

System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR 16.72 95 471247 5.14 ppbv 0.00 Spiked Amount 5.000 Range 62 - 145 Recovery = 102.80%

Target Compounds

Ovalue

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Wed Apr 17 13:23:15 2024

Data File : C:\HPCHEM\1\DATA\032424\3101012.D

7:22 am : 25 Mar 2024 Acq On

Vial: 31 Operator: TJG Inst : GC/MS Ins

: CSI-10346 : TO-15 ANALYSIS Sample

Misc

Multiplr: 1.00

MS Integration Params: rteint.p Quant Time: Apr 17 13:17 2024

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION Last Update : Sun Mar 17 18:31:02 2024

Response via : Initial Calibration

DataAcq Meth : ENTECH1

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1.4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9.27 128 11.01 114 15.15 117	140216 620991 511149	5.00 ppbv 0.00 5.00 ppbv 0.00 5.00 ppbv 0.00
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Rar	16.71 95 nge 62 – 14		5.11 ppbv 0.00 ery = 102.20%

Target Compounds

Ovalue

Vial: 31 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

Data File: C:\HPCHEM\1\DATA\032424\3101012.D
Acq On: 25 Mar 2024 7:22 am
Sample: CSI-10346
Misc: TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:17 2024

Quant Results File: 031424AI.RES

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Data File : C:\HPCHEM\1\DATA\032424\3201013.D

8:07 am : 25 Mar 2024 Acq On

: CSI-91515 : TO-15 ANALYSIS

Vial: 32 Operator: TJG

: GC/MS Ins Inst

Multiplr: 1.00

Misc MS Integration Params: rteint.p Quant Time: Apr 17 13:18 2024

Ouant Results File: 031424AI.RES

Quant Method ; C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Method TO-15 CALIBRATION Title : Sun Mar 17 18:31:02 2024 Last Update

Response via : Initial Calibration

DataAcq Meth : ENTECH1

Sample

Internal Standards	R.T.	QIon	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	0	128 114 117	140896 617590 496903	5.00 ppbv	0,00 0,00 0,00
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ran	16.70 ige 62	95 - 145	372717 Recover	5.19 ppbv cy = 103.80%	0.00

Target Compounds

Spiked Amount

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U013.D Vial: 32 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00 Quant Results File: 031424AI.RES	24AI.M (RTE Integrator) TIC: 3201013.D		мореихен										And the second s	10.00 11.00 12.00 13.00 14.00 15.00 16.00 17.00	13:23:29 2024 6890
Data File: C:\text{CHEM\1\text{DATA\032424\3201013.D}} Acq On: 25 Mar 2024 8:07 am Sample: CSI-91515 Misc: TO-15 ANALYSIS MS Integration Params: rteint.p Quant Time: Apr 17 13:18 2024	Method : C:\text{CHEM\i\mathbole{METHODS\031424AI.M}}	000006	850000	800000	050000 () enerthame	55000000000000000000000000000000000000	\$00000	450000	350000	300000	200000	150000	000005 122 of 13	Time> 4.00 5.00 6.00 7.00 8.00 9.00	3201013.D 031424AI:M Wed Apr 17 13:

Data File : C:\HPCHEM\1\DATA\032424\3301014.D

: 25 Mar 2024 8:50 am Acq On

: CSI-4684 Sample : TO-15 ANALYSIS

Vial: 33 Operator: TJG

: GC∕MS Ins Inst

Multiplr: 1.00

Misc MS Integration Params: rteint.p Quant Time; Apr 17 13:18 2024

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION Last Update : Sun Mar 17 18:31:02 2024

Response via : Initial Calibration

DataAcq Meth : ENTECH1

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9.27 128 11.01 114 15.15 117	140823 619525 494216	5.00 ppbv 0.00 5.00 ppbv -0.01 5.00 ppbv -0.01
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ran	16.70 95 nge 62 - 145	359746 Recove	5.03 ppbv 0.00 ry = 100.60%

Spiked Amount

Target Compounds

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Vial: 33 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00 Results File: 031424AI.RES E Integrator)	TIC: 3301014.D	1,(원) 전화	อนอะนอ	doroiriC) -					48	CARGARITA	100 \$2							7 12.00 13.00 14.00 15.00	•
2424\3301014.D am Quant Re ODS\031424AI.M (RTE IBRATION :02 2024	Calibration	T.(&i) an	ezuəqo	ioulfiQ-1	7 'E		<u>'</u> (SI) əu	ettemor	ojųsout	ъ									7.00 8.00 9.00 10.00 11.00	
Data File: C:\text{CHECHEM\1\DATA\03:} Acq On : 25 Mar 2024 8:50 & Sample : CSI-4684 Misc : TO-15 ANALYSIS MS Integration Params: rteint.p Quant Time: Apr 17 13:18 2024 Method : C:\text{CHEM\1\METHYTITLE} Title : Method TO-15 CAL Last Update : Sun Mar 17 18:31	••	950000	000006	850000	800000	700000	020000	000000	250000	200000	450000	400000	350000	300000	250000	200000	150000	000001 124 of 1	1 me-> 4.00 5.00 6.00	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032424\3401015.D

Acq On

Sample

Operator: TJG

Misc

: 25 Mar 2024 9:33 am : CSI-19625 : TO-15 ANALYSIS : GC∕MS Ins Inst Multiplr: 1.00

MS Integration Params: rteint.p Quant Time: Apr 17 13:19 2024

Quant Results File: 031424AI.RES

Vial: 34

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)

Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration

DataAcq Meth : ENTECH1

Internal Standards	R.T. QI	Ion	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	11.02	128 114 117	136752 590214 477676	5.00 ppbv 0.00 5.00 ppbv 0.00 5.00 ppbv 0.00
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Ran	16.71 ige 62 -	95 145	350225 Recover	5.07 ppbv 0.00 y = 101.40%

Target Compounds

Qvalue

6890

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Data File : C:\HPCHEM\1\DATA\032424\3501016.D

Vial: 35 Operator: TJG

: 25 Mar 2024 10:17 am : CSI-4654 : TO-15 ANALYSIS Acq On : GC∕MS Ins Inst Sample Multiplr: 1.00

Misc

MS Integration Params: rteint.p Quant Results File: 031424AI.RES Quant Time: Apr 17 13:19 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024

Response via : Initial Calibration

DataAcq Meth : ENTECH1

Internal Standards	R.T. QIor	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1,4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9.27 128 11.01 114 15.16 117	597335	5.00 ppbv 0.00 5.00 ppbv 0.00 5.00 ppbv 0.00
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5.000 Rar	16.70 95 nge 62 - 14		4.91 ppbv 0.00 ery = 98.20%

Target Compounds

	19:00 22:00 22:00	Page 2
	S.(RAUs) eneznedoroullemonel-th-	
Vial: 35 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00 int Results File: 031424AI.RES (RTE Integrator) TIC:3501016.D	T,(2l) enexnedotouill(I-4,t	24 6890
2424\3501016.D am Que ODS\031424AI.M IBRATION :02 2024 ion	T.(8) 9.00 10.00	led Apr 17 13:23:37 20
Data File: C:\text{CHECHEM\1\text{DATA\03}} Acq On: 25 Mar 2024 10:17 Sample: CSI-4654 Misc: TO-15 ANALYSIS MS Integration Params: rteint.p Quant Time: Apr 17 13:19 2024 Method: C:\text{CHECHEM\1\text{METH}} Title: Method TO-15 CAL Last Update: Sun Mar 17 18:31 Response via: Initial Calibrat Abundance	\$500000 \$000000 \$000000 \$50000 \$5000 \$5	16.D 031424A

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Data File : C:\HPCHEM\1\DATA\032424\3601017.D

Vial: 36 Operator: TJG

Acq On : 25 Mar 2024 11:01 am Sample : CSI-15563 Misc : TO-15 ANALYSIS Inst : GC/MS Ins Multiplr: 1.00

MS Integration Params: rteint.p

Quant Results File: 031424AI.RES Quant Time: Apr 17 13:19 2024

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator) Title : Method TO-15 CALIBRATION

Title : Method TO-15 CALIBRATION Last Update : Sun Mar 17 18:31:02 2024

Response via : Initial Calibration DataAcq Meth : ENTECH1

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) Bromochloromethane (IS) 25) 1.4-Difluorobenzene (IS) 45) Chlorobenzene-d5 (IS)	9.28 128 11.02 114 15.16 117	135682 580200 487643	5.00 ppbv 0.00 5.00 ppbv 0.00 5.00 ppbv 0.00
System Monitoring Compounds 56) 4-Bromofluorobenzene (SURR Spiked Amount 5,000 Ran	16,71 95 nge 62 – 14	336169 Recove	4.77 ppbv 0.00 ry = 95.40%

Target Compounds

Qvalue

6890

Vial: 36 Operator: TJG Inst : GC/MS Ins Multiplr: 1.00

Data File: C:\HPCHEM\l\DATA\032424\3601017.D Acq On : 25 Mar 2024 11:01 am Sample : CSI-15563 Misc : TO-15 ANALYSIS MS Integration Params: rteint.p Quant Time: Apr 17 13:19 2024

Quant Results File: 031424AI.RES

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