Limited Indoor Air Investigation Report

REPORT DATE: March 19, 2025

SITE INFORMATION

418 North California Street
Stockton, California 95202

PROJECT INFORMATION

AEI Project No. 500681

PREPARED FOR

Central Valley Low Income Housing
2431 West March Lane #350
Stockton, California 95207

PREPARED BY

AEI Consultants
2500 Camino Diablo
Walnut Creek, California 94597
925.746.6000

AEI Consultants
2500 Camino Diablo
Walnut Creek, California 94597

March 19, 2025

Mr. Jon Mendelson Central Valley Low Income Housing
2431 West March Lane #350
Stockton, California 95207

Subject: Limited Indoor Air Investigation
418 North California Street
Stockton, California 95202
AEI Project No. 500681

Dear Mr. Jon Mendelson,

This report presents the results of the Limited Indoor Air Investigation conducted by AEI Consultants (AEI) at 418 North California Street, Stockton, California (the Site) to assess the indoor air conditions following the detected concentrations of tetrachloroethylene (PCE) at concentrations exceeding San Francisco Bay Regional Water Quality Control Board residential vapor intrusion environmental screening levels in the soil gas samples identified in the *Limited Phase II Subsurface Investigation* report by AEI dated February 11, 2025.The investigation was performed in general accordance with the scope of services outlined in our proposal dated February 18, 2025 (AEI Proposal Number 153176), which was subsequently authorized on March 4, 2025.

AEI appreciates the opportunity to support this important project. If you have any questions, please do not hesitate to contact me.

Sincerely,

Justin Hertz
Business Development Manager
10101 North 92nd Street, Suite 201
Scottsdale, Arizona 85258
925.746.6016
jhertz@aeiconsultants.com

TABLE OF CONTENTS

1.0 PURPOSE

This report presents the results of the Limited Phase II Subsurface Investigation (Phase II) performed by AEI Consultants (AEI) at 418 North California Street, Stockton, California (the Site). The investigation was conducted in general accordance with the scope of work presented in AEI's proposal number 153176 dated February 18, 2025, authorized by the Client on March 4, 2025.

The general purpose of this Phase II was to evaluate to evaluate potential vapor intrusion following the detected concentrations of tetrachloroethylene (PCE) exceeding San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) residential vapor intrusion environmental screening level (ESL) in the soil gas samples identified in the *Phase II Environmental Site Property Assessment* report by AEI dated February 11, 2025. The Site descriptions, background, investigation procedures, findings, summary, and conclusions are presented in the following sections.

2.0 SITE DESCRIPTION AND BACKGROUND

Details on the Site description and background are presented below.

2.1 Site Description

The Site is located on the eastern side of North California Street in Stockton, California. The Site consists of approximately 0.34 acres of land. At the time of the investigation, the Site was occupied by a multifamily 4-story residential building. The remainder of the Site is improved with asphalt-paved parking areas, fencing, and associated landscaping.

The Site appeared to be flat, with a topographic gradient toward the north-northeast and is situated at an elevation of approximately 17 feet above mean sea level. Groundwater flow direction is inferred to follow the topographic gradient, flowing towards the north-northeast. According to the Draft Phase I ESA, first encountered groundwater in the area of the Site is anticipated to be at 27 to 33 feet below ground surface. The Site location appears on Figure 1 – Site Location Map.

2.2 Background

According to the January 13, 2025, Draft Phase I ESA, the Site was a rug and carpet cleaning and awning, tent, and upholstery repair and manufacturing facility from 1893 to 1985. Based on the nature of use, it is likely that various quantities of hazardous substances were used and stored on site, Rug and carpet cleaning operations during this time frame typically use chlorinated solvents, particularly tetrachloroethylene (PCE), during the dry-cleaning process. While PCE was first used widely as a dry-cleaning solvent in 1934, carbon tetrachloride was used from the 1920s to early 1930s and trichloroethylene (TCE) was used prior to PCE. Prior to the 1930s, petroleum solvents may have been used including camphene, benzene, kerosene, and gasoline. These substances and solvents, even when properly stored and handled, can

readily migrate into the subsurface as a result of small releases associated with on-site operations. Specifically, chlorinated solvents are highly mobile chemicals that can easily accumulate in soil and soil gas and migrate to groundwater beneath a facility. Based on this information, the likely presence of hazardous substances at the Site due to a likely release represents a REC. In particular, the presence of the rug and carpet cleaning and awning, tent, and upholstery repair and manufacturing facility on the Site represents evidence of a REC.

In addition, the adjoining property to the south at 408 North California Street was formerly a gasoline service station from at least 1950 until 1968. Based on the proximity of this former gasoline station to the Site, the inferred direction of groundwater flow, and the limited scope of the previous investigation, the potential exists that, if a release of petroleum hydrocarbons occurred, the subsurface of the Site may have also been impacted. Therefore, the potential nearby release is considered evidence of a REC.

AEI conducted a Limited Phase II Subsurface Investigation in January 2025 to determine if the subsurface had been adversely impacted at the Site by collecting soil gas samples in the basement of the Site. Three of the four soil gas samples yielded concentrations of PCE at 20, 25, and 33 micrograms per cubic meter ($\mu g/m^3$), above the residential vapor intrusion environmental screening level (ESL) of 15 $\mu g/m^3$. Therefore, the purpose of this Limited Indoor Air Investigation is to identify if vapor intrusion is impacting indoor air conditions at the Site.

3.0 FIELD INVESTIGATION AND OBSERVATIONS

Investigation efforts included the collection of three indoor air samples (IA-1, IA-2, and IA-3) and one ambient (AA-1) at the Site over a period of 24 hours. The sample locations appear on Figure 2 – Site Map and investigative activities are summarized below.

3.1 Health and Safety Plan

A health and safety plan was prepared to address potential hazards during the subsurface investigation, reviewed by on-site personnel, and maintained by the field crew for the duration of the investigation.

3.2 Air Sample Collection

On March 10 and 11, 2025, AEI collected three indoor air samples (IA-1, IA-2 and IA-3) and one of ambient air sample (AA-1). The air samples IA-1 and IA-2 were placed in the basement closest to the previous soil gas sample SS-1 (IA-1) and in between SS-2 and SS-3 (IA-2) Air sample IA-3 was placed at ground level, in the vacant residential unit 101. The air samples were collected in laboratory-supplied, individually certified, 6-Liter Summa® canisters using laboratory-calibrated flow controllers set to collect each sample over a period of 24 hours.

Prior to beginning sample collection, a shut-in test was performed to confirm that the connection between the Summa® canister and flow controller were secure. A successful shut-in test ensures that only air passing through the regulator and filter is admitted into the Summa® canister. After the initial vacuum, date, time were recorded, sample collection commenced.

Sample collection was complete shortly before the designated sample time as determined by the calibrated flow controller. The final date, time, and vacuum were recorded. Canisters were sealed with a slight vacuum.

The samples were prepared by completing the tag attached to each Summa® canister with the requested information: the sample identification, the final date and time of sample completion, the sampler's name, the initial and final vacuum readings, and if required, the flow controller used with that canister. This information was also entered on the chain-of-custody documentation in preparation of transferring the samples to the laboratory for analysis.

During sample collection, AEI performed a walkthrough of the building to identify potential background sources of indoor air contamination prior to conducting air sampling. Key components of the building walkthrough include but are not limited to the following items: 1) identification of potential background sources of PCE; 2) assessment of the building construction (e.g., concrete slab, air flow); 3) identification of points of potential vapor intrusion into the building; and 4) identification of possible sample locations.

3.3 Laboratory Analyses

The four Summa® canisters containing air samples were placed into laboratory-supplied cartons with the flow controllers and submitted to the laboratory where they were analyzed for PCE using US EPA Method TO-15 SIM.

4.0 FINDINGS

The findings of this investigation are summarized below.

Analytical results generated during this investigation were evaluated in general accordance with the *User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), Interim Final 2019, Revision 2 July 2019*. The ESLs are considered to be conservative. Under most circumstances, and within the limitations described in the ESL guidance documents, the presence of a chemical in air at concentrations below corresponding ESL guidance concentrations do not pose an unacceptable risk to human health and the environment. Additional evaluation may be necessary at sites where a chemical is present at concentrations above the corresponding ESL or other appropriate screening level.

During the walkthrough AEI did not identify potential background sources of PCE or points of potential vapor intrusion at the Site.

For this investigation, the analytical results were compared to the screening levels assuming an exposure pathway for direct exposure under the residential use scenario.

The laboratory analytical reports with chain-of-custody documentation are presented in Appendix A.

Table 1 presents a summary of the analytical results for the three indoor air and one of ambient sample, along with their respective regulatory screening levels, where applicable. A summary of the analytical results is presented below:

- PCE was detected in each of the three indoor air samples at concentrations of 0.0949 µg/m^3 (IA-1), 0.161 µg/m^3 (IA-2), and 1.80 µg/m^3 (IA-3). The observed concentration in the indoor air sample IA-3 slightly exceeds the residential vapor intrusion ESL of 0.46 µg/m^3. This sample was collected from the ground floor level. PCE was not detected in the ambient air sample above the laboratory practical quantitation limit (PQL).

5.0 SUMMARY AND CONCLUSIONS

AEI completed a Limited Indoor Air Investigation to assess the indoor air at the Site. Investigation efforts included collection of three indoor air samples and one ambient air sample at the Site over a period of 24 hours.

Based on the results of this investigation, impacts to indoor air quality from PCE were identified in one area sampled at the Site, on the ground floor. The presence of PCE at a concentration slightly above the residential ESL suggests there is a potential unacceptable risk to current and future users of the Site. However, PCE was not identified in the two basement samples above the residential ESL. Therefore, AEI recommends optimizing the HVAC or ventilation system to increase the air exchange rate and to conduct performance monitoring in approximately six months to capture seasonal fluctuations, and to determine the effectiveness of the HVAC or ventilation system optimization.

6.0 REFERENCES

AEI, 2025, *Phase I Environmental Site Assessment, 418 North California Street, Stockton, California 95202*, (AEI Project No. 500681), dated January 13.

AEI, 2025, *Limited Phase II Subsurface Investigation, 418 North California Street, Stockton, California 95202*, (AEI Project No. 500681), dated February 11.

California Department of Toxic Substances Control (DTSC), 2023. *Supplemental Guidance: Screening and Evaluating Vapor Intrusion, Final Draft*, February.

San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), 2019, *Environmental Screening Levels*, dated July 2019, revision 2.

7.0 REPORT LIMITATIONS AND RELIANCE

This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and

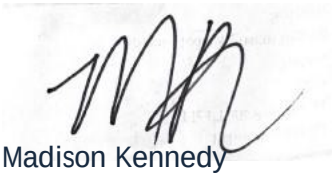
location of samples are chosen to provide the requested information, subject to scope of work for which AEI was retained and limitations inherent in this type of work, but it cannot be assumed that they are representative of areas not sampled. This report should not be regarded as a guarantee that no further contamination beyond that which could have been detected within the scope of this investigation is present beneath the Site. Undocumented, unauthorized releases of hazardous material, the remains of which are not readily identifiable by visual inspection and are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation.

Any conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document. These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work. No other warranty, either expressed or implied, has been made.

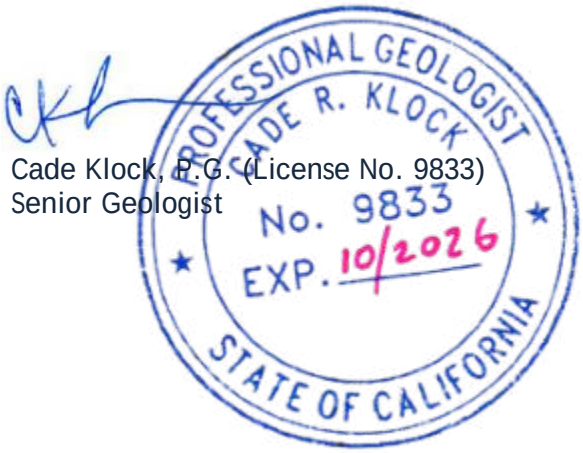
This investigation was prepared for the sole use and benefit of Central Valley Low Income Housing. Both verbal and written, whether in draft or final, are for the benefit of Central Valley Low Income Housing. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI's Proposal and Standard Terms & Conditions executed by Central Valley Low Income Housing. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

8.0 SIGNATURES

This document was prepared by, or under the direction of, the undersigned.



Madison Kennedy
Staff Scientist I



Cade Klock, P.G. (License No. 9833)
Senior Geologist

FIGURES

LEGEND

☆ Approximate Site Location

N

Source: USGS

SITE LOCATION MAP

AEI

418 North California Street,
Stockton, California 95202

FIGURE 1
Project No. 500681

N

LEGEND

- Approximate Site Boundary
- Approximate Basement Wall Layout
- Approximate Indoor/Ambient Air Sample Location
- Former Sub-Slab Location (AEI, 2025) SS-4
- Approximate Groundwater Flow Direction

SITE MAP

AEI

418 North California Street
Stockton, California 95202

FIGURE 2
Project No. 500681

TABLE

TABLE 1: INDOOR AIR SAMPLE DATA SUMMARY
418 North California Street, Stockton, California 95202
AEI Project No. 500681

VOCs by U.S. EPA Method TO-15SIM			
Location ID	**Sample Date**	**Location**	**Tetrachloroethylene (PCE)** ($\mu g/m^3$)
IA-1	3/11/2025	Basement	0.0949
IA-2	3/11/2025	Basement	0.161
IA-3	3/11/2025	Ground Floor	**1.80**
AA-1	3/11/2025	Outside, north of the building	ND<0.0698
Comparison Values in $\mu g/m^3$ - ESLs, Table IA-1, Residential Sites*			0.46

Notes:

	Analysis performed by Torrent Laboratory, Milpitas, California
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
$\mu g/m^3$	Micrograms per cubic meter
ND<	Not detected at or above the practical quantitation limit (PQL) shown
EPA	Environmental Protection Agency
SIM	Denotes list of VOCs specific to Indoor Air Sampling
VOCs	Volatile Organic Compounds
Bold	Result exceeds a Comparison Value
Table IA-1	Indoor Air-Direct Exposure Human Health Risk Levels
IA	Indoor Air
AA	Ambient Air
*	Revision 2 Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board, July 2019

APPENDIX A
Laboratory Analytical Report

AEI Consultants
2500 Camino Diablo
Walnut Creek, California 94597
Tel: 925-746-6048

RE: Limited Indoor Air Investigation

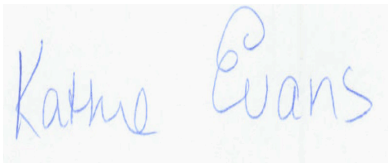
Work Order No.: 2503078

Dear Cade Klock:

Torrent Laboratory, Inc. received 4 sample(s) on March 11, 2025 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



Kathie Evans
Project Manager

March 13, 2025
Date

Date: 3/13/2025

Client: AEI Consultants

Project: Limited Indoor Air Investigation

Work Order: 2503078

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.
This report shall not be reproduced, except in full, without the written approval of Torrent Laboratory, Inc.

Canisters are self-certified, and the report for the individually tested canisters can be found on work order WO 2503079.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Cade Klock
AEI Consultants

Date Received: 03/11/25
Date Reported: 03/13/25

IA-1 2503078-001

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Tetrachloroethylene	TO15 SIM	1	0.0257	0.0678	0.0949

IA-2 2503078-002

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Tetrachloroethylene	TO15 SIM	1.7	0.0437	0.115	0.161

IA-3 2503078-003

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Tetrachloroethylene	TO15 SIM	1.2	0.0308	0.0814	1.80

AA-1 2503078-004

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3

All compounds were non-detectable for this sample.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Cade Klock
AEI Consultants

Date/Time Received: 03/11/25, 11:45 am
Date Reported: 03/13/25

Client Sample ID:	IA-1	**Lab Sample ID:**	2503078-001A
Project Name/Location:	Limited Indoor Air Investigation	**Sample Matrix:**	Air
Project Number:	500681		
Date/Time Sampled:	03/11/25 / 10:02	**Certified Clean WO # :**	
Canister/Tube ID:	32744	**Received PSI :**	14.2
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO-15SIM-P	**Prep Batch Date/Time:**	3/11/25	12:32:00PM
Prep Batch ID:	1168756	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Tetrachloroethylene	TO15 SIM	1.00	0.0257	0.0678	0.0949	0.01		03/11/25	15:52	BA	491646

Client Sample ID:	IA-2	**Lab Sample ID:**	2503078-002A
Project Name/Location:	Limited Indoor Air Investigation	**Sample Matrix:**	Air
Project Number:	500681		
Date/Time Sampled:	03/11/25 / 10:03	**Certified Clean WO # :**	
Canister/Tube ID:	32744	**Received PSI :**	13.2
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO-15SIM-P	**Prep Batch Date/Time:**	3/11/25	12:32:00PM
Prep Batch ID:	1168756	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Tetrachloroethylene	TO15 SIM	1.70	0.0437	0.115	0.161	0.02		03/11/25	17:00	BA	491646

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Cade Klock
AEI Consultants

Date/Time Received: 03/11/25, 11:45 am
Date Reported: 03/13/25

Client Sample ID:	IA-3	**Lab Sample ID:**	2503078-003A
Project Name/Location:	Limited Indoor Air Investigation	**Sample Matrix:**	Air
Project Number:	500681		
Date/Time Sampled:	03/11/25 / 10:05	**Certified Clean WO # :**	
Canister/Tube ID:	32744	**Received PSI :**	13.3
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO-15SIM-P	**Prep Batch Date/Time:**	3/11/25	12:32:00PM
Prep Batch ID:	1168756	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Tetrachloroethylene	TO15 SIM	1.20	0.0308	0.0814	1.80	0.27		03/11/25	18:07	BA	491646

Client Sample ID:	AA-1	**Lab Sample ID:**	2503078-004A
Project Name/Location:	Limited Indoor Air Investigation	**Sample Matrix:**	Air
Project Number:	500681		
Date/Time Sampled:	03/11/25 / 10:00	**Certified Clean WO # :**	
Canister/Tube ID:	32744	**Received PSI :**	14.3
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO-15SIM-P	**Prep Batch Date/Time:**	3/11/25	12:32:00PM
Prep Batch ID:	1168756	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Tetrachloroethylene	TO15 SIM	1.03	0.0265	0.0698	ND	ND		03/11/25	19:27	BA	491646

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2503078	**Prep Method:**	TO-15SIM-P	**Prep Date:**	03/11/25	**Prep Batch:**	1168756
Matrix:	Air	**Analytical Method:**	TO15 SIM	**Analyzed Date:**	3/11/2025	**Analytical Batch:**	491646
Units:	ug/m3						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	0.018	0.12	ND	
Chloromethane	0.0087	0.10	ND	
Vinyl Chloride	0.0037	0.0077	ND	
1,3-Butadiene	0.022	0.11	ND	
Bromomethane	0.0081	0.097	ND	
Chloroethane	0.0021	0.13	ND	
Trichlorofluoromethane	0.012	0.11	ND	
2-Propanol (Isopropyl Alcohol)	0.016	0.12	ND	
Acetone	0.026	0.12	ND	
1,1-Dichloroethene	0.0067	0.099	ND	
tert-Butanol	0.011	0.15	ND	
Methylene Chloride	0.015	0.17	ND	
Freon 113	0.013	0.077	ND	
Carbon disulfide	0.0028	0.078	ND	
trans-1,2-Dichloroethene	0.0037	0.099	ND	
MTBE	0.0062	0.090	ND	
1,1-Dichloroethane	0.0050	0.10	ND	
Vinyl Acetate	0.0050	0.018	ND	
Hexane	0.0045	0.088	ND	
2-Butanone (MEK)	0.0027	0.074	ND	
Diisopropyl ether (DIPE)	0.0044	0.10	ND	
cis-1,2-Dichloroethene	0.0040	0.099	ND	
Ethyl Acetate	0.0033	0.090	ND	
Chloroform	0.0081	0.12	ND	
ETBE	0.0048	0.10	ND	
Tetrahydrofuran	0.029	0.074	ND	
1,2-Dichloroethane (EDC)	0.0050	0.10	ND	
1,1,1-Trichloroethane	0.0082	0.14	ND	
Carbon Tetrachloride	0.0085	0.16	ND	
Benzene	0.034	0.080	ND	
TAME	0.0025	0.10	ND	
1,2-Dichloropropane	0.0047	0.12	ND	
Trichloroethylene	0.011	0.13	ND	
Bromodichloromethane	0.0056	0.17	ND	
1,4-Dioxane	0.011	0.090	ND	
cis-1,3-Dichloropropene	0.0036	0.11	ND	
4-Methyl-2-Pentanone (MIBK)	0.0064	0.10	ND	
trans-1,3-Dichloropropene	0.0040	0.11	ND	
1,1,2-Trichloroethane	0.0032	0.14	ND	
Toluene	0.0041	0.094	ND	
2-Hexanone	0.0089	0.10	ND	
Dibromochloromethane	0.021	0.21	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2503078	**Prep Method:**	TO-15SIM-P	**Prep Date:**	03/11/25	**Prep Batch:**	1168756
Matrix:	Air	**Analytical Method:**	TO15 SIM	**Analyzed Date:**	3/11/2025	**Analytical Batch:**	491646
Units:	ug/m3						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
1,2-Dibromoethane (EDB)	0.0041	0.19	ND		
Tetrachloroethylene	0.026	0.17	ND		
1,1,1,2-Tetrachloroethane	0.0089	0.17	ND		
Chlorobenzene	0.0023	0.12	ND		
Ethylbenzene	0.0023	0.11	ND		
m,p-Xylene	0.0026	0.11	0.0030	J	
Bromoform	0.034	0.26	ND		
Styrene	0.0031	0.11	ND		
1,1,2,2-tetrachloroethane	0.0023	0.034	0.0040	J	
o-Xylene	0.0022	0.022	ND		
4-Ethyl toluene	0.0034	0.12	ND		
1,3,5-Trimethylbenzene	0.0035	0.12	ND		
1,2,4-Trimethylbenzene	0.0033	0.12	ND		
1,3-Dichlorobenzene	0.0056	0.15	ND		
1,4-Dichlorobenzene	0.0052	0.15	ND		
1,2-Dichlorobenzene	0.0056	0.15	ND		
1,2,4-Trichlorobenzene	0.066	0.19	ND		
Naphthalene	0.0047	0.079	ND		
Hexachlorobutadiene	0.11	0.11	ND		
Freon 114	0.012	0.070	ND		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2503078	**Prep Method:**	TO-15SIM-P	**Prep Date:**	03/11/25	**Prep Batch:**	1168756
Matrix:	Air	**Analytical Method:**	TO15 SIM	**Analyzed Date:**	3/11/2025	**Analytical Batch:**	491646
Units:	ug/m3						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.011	0.0050	ND	0.100	104	103	0.966	65 - 135	30	
Benzene	0.0021	0.020	ND	0.100	98.0	96.0	2.06	65 - 135	30	
Trichloroethylene	0.0011	0.0050	ND	0.100	91.0	90.0	1.11	65 - 135	30	
Toluene	0.00050	0.0050	ND	0.100	84.0	85.0	1.18	65 - 135	30	
Chlorobenzene	0.0017	0.0050	ND	0.100	79.0	79.0	0.000	65 - 135	30	

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: AEI Consultants

Project Name: Limited Indoor Air Investigation

Work Order No.: 2503078

Date and Time Received: 3/11/2025 11:45:00AM

Received By: tt

Physically Logged By: Lorna Imbat

Checklist Completed By: Lorna Imbat

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes
Container/Temp Blank temperature in compliance?	Temperature: °C
Water-VOA vials have zero headspace?	No VOA vials submitted
Water-pH acceptable upon receipt?	N/A

pH Checked by: n/a

pH Adjusted by: n/a

Comments:

Login Summary Report

Client ID: TL5781 AEI Consultants
Project Name: Limited Indoor Air Investigation
Project # : 500681
Report Due Date: 3/13/2025
QC Level: II
TAT Requested: 2 Day Rush:2
Date Received: 3/11/2025
Time Received: 11:45 am

Comments:

Work Order # : ***2503078***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2503078-001A	IA-1	03/11/25 10:02	Air				VOC_A_TO15SIM	
Sample Note:	PCE only							
2503078-002A	IA-2	03/11/25 10:03	Air				VOC_A_TO15SIM	
2503078-003A	IA-3	03/11/25 10:05	Air				VOC_A_TO15SIM	
2503078-004A	AA-1	03/11/25 10:00	Air				VOC_A_TO15SIM	

Torrent LABORATORY, INC.

Torrent LABORATORY, INC.
483 Sinclair Frontage Road
Milpitas, CA 95035
Phone: 408.263.5258
FAX: 408.263.8293
www.torrentlab.com

Reset

CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

LAB WORK ORDER NO: 2503078

Company Name: 2500 Camino Diablo ☐ ☒ Env. ☐ Special
Address: 2500 Camino Diablo
City: Walnut Creek State: CA Zip Code: 94597
Telephone: 925-746-6000 Cell: 724-344-0251
REPORT TO: Cade Klock / Kate Lamb BILL TO: AEI

Project #: 500681 PO #: 396573
Project Name: Limited Indoor Air Investigation
Comments:
SAMPLER: M.Kennedy Quote #:
EMAIL: mkennedy@aeiconsultants.com

TURNAROUND TIME:
☐ 2 - 8 Hours ☒ 2 Work Days ☐ 5 Work Days
☐ Noon - Nxt Day ☐ 3 Work Days ☐ 7 Work Days
☐ 1 Work Day ☐ 4 Work Days ☐ 10 Work Days

SAMPLE TYPE:
☒ Indoor Air
☒ Ambient Air
☐ Soil/Gas Vapor
☐ Other

REPORT FORMAT:
☒ Level II - Std.
☐ Excel - EDD
☐ EDF ☐ Std.-EDD
☐ QC Level III
☐ QC Level IV

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	CANISTER I.D.	Initial Vac.	Final Vac.	Flow Controller #	TO 15	TO 15 SIM For PCE only	TO 17	REMARKS
-001A	IA-1	3/11/25 1002	Air	1	6L 1L	32744	-29.5	-7	4U16	☐	☒	☐	48-hour TAT please!
-002A	IA-2	1003			6L 1L	32745	-30	-6	4U2	☐	☐	☐	
-003A	IA-3	1005			6L 1L	30562	-29	-2	4U38	☐	☐	☐	
-004A	AA-1	1008			6L 1L	39994	-30	-7	4U95	☐	☐	☐	
					6L 1L					☐	☐	☐	
					6L 1L					☐	☐	☐	
					6L 1L					☐	☐	☐	RUSH
					6L 1L					☐	☐	☐	
					6L 1L					☐	☐	☐	
					6L 1L					☐	☐	☐	

	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:
1	[signature]	Madison Kennedy	3/11/25	1015	[signature]	TAMMY THAEA	03/11/2025	11:45
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? ☒ Yes ☐ NO Samples on Ice? ☐ Yes ☐ NO Method of Shipment: Drop off Sample seals intact? ☐ Yes ☐ NO ☒ N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Log In By: _____ Date: _____ Labeled By: _____ Date: _____ Temp _____ °C Page ____ of ____ Rev. 5

QA-F-066, TLICD-960