

May 29, 2024
File No. 25221094.00

Don and Cynthia Hertrampf
127 South Dousman Street
Prairie du Chien, WI 53821

Subject: Indoor and Outdoor Air Sample Results
Vapor Mitigation System Commissioning Round 2 of 3
127 South Dousman Street, Prairie du Chien, Wisconsin
Former Blackhawk Drycleaners, BRRTS # 02-12-552357

Dear Mr. and Mrs. Hertrampf:

On behalf of the Prairie du Chien Redevelopment Authority (RDA), SCS Engineers (SCS) is providing results for indoor and outdoor (background) air samples collected from your property in April 2024. The samples were collected to assess the effectiveness of the vapor mitigation system (VMS), which was installed in July 2023. The samples were submitted to Eurofins for laboratory analysis of volatile organic compounds associated with drycleaner solvent contamination. The laboratory report is included in **Attachment A**.

Contaminants were not detected in the outdoor air sample. Minor concentrations of tetrachloroethene (PCE) and trichloroethene (TCE) were detected in the basement indoor air sample which do not exceed Wisconsin Department of Natural Resources indoor air vapor action levels (VALs). SCS observed that the VMS was in good condition and operating properly. The testing indicates there is not a health risk associated with vapor intrusion.

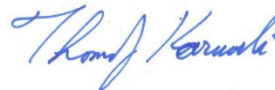
We plan to contact you to coordinate one additional commissioning event to further evaluate the effectiveness of the VMS. It is anticipated that the remaining event will be performed this summer.

Please feel free to contact Robert Langdon of SCS at (608) 212-3995 or Matt Vitale of Wisconsin Department of Natural Resources at (715) 492-1222 if you have any questions concerning the testing.

Sincerely,



Robert Langdon
Senior Project Manager
SCS Engineers



Thomas J. Karwoski, PG
Project Director
SCS Engineers

REL/TK/REO

cc: Matt Vitale, Wisconsin Department of Natural Resources
Chad Abram, City of Prairie du Chien Redevelopment Authority

Enclosures: Attachment A – Laboratory Report

I:\25221094.00\Correspondence\Other\127 S. Dousman Results\VMS Commissioning\240529_127 S. Dousman Sample Results.docx



Attachment A
Laboratory Report



ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Robert Langdon
SCS Engineers
2830 Dairy Drive

Madison, Wisconsin 53718

Generated 5/14/2024 1:47:46 PM Revision 1

JOB DESCRIPTION

Blackhawk Junction

JOB NUMBER

140-36535-1

Eurofins Knoxville

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



Authorized for release by
Ryan Henry, Project Manager I
WilliamR.Henry@et.eurofinsus.com
(865)291-3006

Generated
5/14/2024 1:47:46 PM
Revision 1



Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Sample Summary	6
Client Sample Results	7
Default Detection Limits	9
QC Sample Results	10
QC Association Summary	12
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Chain of Custody	16
Receipt Checklists	18
Air Canister Dilution	19

Definitions/Glossary

Client: SCS Engineers
Project/Site: Blackhawk Junction

Job ID: 140-36535-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: SCS Engineers
Project: Blackhawk Junction

Job ID: 140-36535-1

Job ID: 140-36535-1

Eurofins Knoxville

Job Narrative 140-36535-1

Receipt

The samples were received on 4/29/2024 at 10:00am and arrived in good condition.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. COC not relinquished

Air - GC/MS VOA

Methods TO 15 LL, TO-14A, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



Sample Summary

Client: SCS Engineers
Project/Site: Blackhawk Junction

Job ID: 140-36535-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-36535-1	127 SOUTH DOUSMAN ST. IA	Air	04/25/24 08:35	04/29/24 10:00	Air Canister (6-Liter) #12518
140-36535-2	127 SOUTH DOUSMAN ST. OA	Air	04/25/24 08:37	04/29/24 10:00	Air Canister (6-Liter) #12362

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Client Sample Results

Client: SCS Engineers
 Project/Site: Blackhawk Junction

Job ID: 140-36535-1

Client Sample ID: 127 SOUTH DOUSMAN ST. IA

Lab Sample ID: 140-36535-1

Date Collected: 04/25/24 08:35

Matrix: Air

Date Received: 04/29/24 10:00

Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.79	0.099	ug/m3			05/10/24 16:07	1
Tetrachloroethene	1.3	J	1.4	0.20	ug/m3			05/10/24 16:07	1
trans-1,2-Dichloroethene	ND		0.79	0.13	ug/m3			05/10/24 16:07	1
Trichloroethene	0.31	J	1.1	0.18	ug/m3			05/10/24 16:07	1
Vinyl chloride	ND		1.0	0.17	ug/m3			05/10/24 16:07	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.20	0.025	ppb v/v			05/10/24 16:07	1
Tetrachloroethene	0.20	J	0.20	0.029	ppb v/v			05/10/24 16:07	1
trans-1,2-Dichloroethene	ND		0.20	0.033	ppb v/v			05/10/24 16:07	1
Trichloroethene	0.058	J	0.20	0.033	ppb v/v			05/10/24 16:07	1
Vinyl chloride	ND		0.40	0.065	ppb v/v			05/10/24 16:07	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Blackhawk Junction

Job ID: 140-36535-1

Client Sample ID: 127 SOUTH DOUSMAN ST. OA

Lab Sample ID: 140-36535-2

Date Collected: 04/25/24 08:37

Matrix: Air

Date Received: 04/29/24 10:00

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.79	0.099	ug/m3			05/03/24 02:05	1.41
Tetrachloroethene	ND		1.4	0.20	ug/m3			05/03/24 02:05	1.41
trans-1,2-Dichloroethene	ND		0.79	0.13	ug/m3			05/03/24 02:05	1.41
Trichloroethene	ND		1.1	0.18	ug/m3			05/03/24 02:05	1.41
Vinyl chloride	ND		1.0	0.17	ug/m3			05/03/24 02:05	1.41

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.20	0.025	ppb v/v			05/03/24 02:05	1.41
Tetrachloroethene	ND		0.20	0.029	ppb v/v			05/03/24 02:05	1.41
trans-1,2-Dichloroethene	ND		0.20	0.033	ppb v/v			05/03/24 02:05	1.41
Trichloroethene	ND		0.20	0.033	ppb v/v			05/03/24 02:05	1.41
Vinyl chloride	ND		0.40	0.065	ppb v/v			05/03/24 02:05	1.41

Default Detection Limits

Client: SCS Engineers
Project/Site: Blackhawk Junction

Job ID: 140-36535-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	RL	MDL	Units
cis-1,2-Dichloroethene	0.79	0.099	ug/m3
cis-1,2-Dichloroethene	0.20	0.025	ppb v/v
Tetrachloroethene	1.4	0.20	ug/m3
Tetrachloroethene	0.20	0.029	ppb v/v
trans-1,2-Dichloroethene	0.79	0.13	ug/m3
trans-1,2-Dichloroethene	0.20	0.033	ppb v/v
Trichloroethene	1.1	0.18	ug/m3
Trichloroethene	0.20	0.033	ppb v/v
Vinyl chloride	1.0	0.17	ug/m3
Vinyl chloride	0.40	0.065	ppb v/v

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Sample Results

Client: SCS Engineers
Project/Site: Blackhawk Junction

Job ID: 140-36535-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 140-86189/5
Matrix: Air
Analysis Batch: 86189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,2-Dichloroethene	ND		0.79	0.099	ug/m3			05/02/24 08:55	1
Tetrachloroethene	ND		1.4	0.20	ug/m3			05/02/24 08:55	1
trans-1,2-Dichloroethene	ND		0.79	0.13	ug/m3			05/02/24 08:55	1
Trichloroethene	ND		1.1	0.18	ug/m3			05/02/24 08:55	1
Vinyl chloride	ND		1.0	0.17	ug/m3			05/02/24 08:55	1

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,2-Dichloroethene	ND		0.20	0.025	ppb v/v			05/02/24 08:55	1
Tetrachloroethene	ND		0.20	0.029	ppb v/v			05/02/24 08:55	1
trans-1,2-Dichloroethene	ND		0.20	0.033	ppb v/v			05/02/24 08:55	1
Trichloroethene	ND		0.20	0.033	ppb v/v			05/02/24 08:55	1
Vinyl chloride	ND		0.40	0.065	ppb v/v			05/02/24 08:55	1

Lab Sample ID: LCS 140-86189/1002
Matrix: Air
Analysis Batch: 86189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	Limits
Tetrachloroethene	10.9	10.8		ug/m3		100	70 - 130	
trans-1,2-Dichloroethene	6.34	5.99		ug/m3		94	70 - 130	
Trichloroethene	8.60	7.89		ug/m3		92	70 - 130	
Vinyl chloride	4.09	4.25		ug/m3		104	70 - 130	

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	Limits
Tetrachloroethene	1.6	1.60		ppb v/v		100	70 - 130	
trans-1,2-Dichloroethene	1.6	1.51		ppb v/v		94	70 - 130	
Trichloroethene	1.6	1.47		ppb v/v		92	70 - 130	
Vinyl chloride	1.6	1.66		ppb v/v		104	70 - 130	

Lab Sample ID: MB 140-86474/5
Matrix: Air
Analysis Batch: 86474

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,2-Dichloroethene	ND		0.79	0.099	ug/m3			05/10/24 08:05	1
Tetrachloroethene	ND		1.4	0.20	ug/m3			05/10/24 08:05	1
trans-1,2-Dichloroethene	ND		0.79	0.13	ug/m3			05/10/24 08:05	1
Trichloroethene	ND		1.1	0.18	ug/m3			05/10/24 08:05	1
Vinyl chloride	ND		1.0	0.17	ug/m3			05/10/24 08:05	1

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,2-Dichloroethene	ND		0.20	0.025	ppb v/v			05/10/24 08:05	1
Tetrachloroethene	ND		0.20	0.029	ppb v/v			05/10/24 08:05	1
trans-1,2-Dichloroethene	ND		0.20	0.033	ppb v/v			05/10/24 08:05	1
Trichloroethene	ND		0.20	0.033	ppb v/v			05/10/24 08:05	1
Vinyl chloride	ND		0.40	0.065	ppb v/v			05/10/24 08:05	1

Eurofins Knoxville

QC Sample Results

Client: SCS Engineers
 Project/Site: Blackhawk Junction

Job ID: 140-36535-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-86474/1002
Matrix: Air
Analysis Batch: 86474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	6.34	6.51		ug/m3		103	70 - 130
Tetrachloroethene	10.9	11.9		ug/m3		110	70 - 130
trans-1,2-Dichloroethene	6.34	6.70		ug/m3		106	70 - 130
Trichloroethene	8.60	9.11		ug/m3		106	70 - 130
Vinyl chloride	4.09	4.96		ug/m3		121	70 - 130
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	1.6	1.64		ppb v/v		103	70 - 130
Tetrachloroethene	1.6	1.76		ppb v/v		110	70 - 130
trans-1,2-Dichloroethene	1.6	1.69		ppb v/v		106	70 - 130
Trichloroethene	1.6	1.69		ppb v/v		106	70 - 130
Vinyl chloride	1.6	1.94		ppb v/v		121	70 - 130

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Association Summary

Client: SCS Engineers
Project/Site: Blackhawk Junction

Job ID: 140-36535-1

Air - GC/MS VOA

Analysis Batch: 86189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-36535-2	127 SOUTH DOUSMAN ST. OA	Total/NA	Air	TO-15	
MB 140-86189/5	Method Blank	Total/NA	Air	TO-15	
LCS 140-86189/1002	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 86474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-36535-1	127 SOUTH DOUSMAN ST. IA	Total/NA	Air	TO-15	
MB 140-86474/5	Method Blank	Total/NA	Air	TO-15	
LCS 140-86474/1002	Lab Control Sample	Total/NA	Air	TO-15	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Lab Chronicle

Client: SCS Engineers
Project/Site: Blackhawk Junction

Job ID: 140-36535-1

Client Sample ID: 127 SOUTH DOUSMAN ST. IA

Lab Sample ID: 140-36535-1

Date Collected: 04/25/24 08:35

Matrix: Air

Date Received: 04/29/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	86474	05/10/24 16:07	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: 127 SOUTH DOUSMAN ST. OA

Lab Sample ID: 140-36535-2

Date Collected: 04/25/24 08:37

Matrix: Air

Date Received: 04/29/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1.41	282 mL	500 mL	86189	05/03/24 02:05	S1K	EET KNX
Instrument ID: MG										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-86189/5

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	86189	05/02/24 08:55	S1K	EET KNX
Instrument ID: MG										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-86474/5

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	86474	05/10/24 08:05	S1K	EET KNX
Instrument ID: MS										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-86189/1002

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	500 mL	500 mL	86189	05/02/24 07:50	S1K	EET KNX
Instrument ID: MG										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-86474/1002

Date Collected: N/A

Matrix: Air

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	500 mL	500 mL	86474	05/10/24 06:06	S1K	EET KNX
Instrument ID: MS										

Laboratory References:

EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Eurofins Knoxville

Accreditation/Certification Summary

Client: SCS Engineers
 Project/Site: Blackhawk Junction

Job ID: 140-36535-1

Laboratory: Eurofins Knoxville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	N/A	
ANAB	Dept. of Defense ELAP	L2311	02-13-25
ANAB	Dept. of Energy	L2311.01	02-13-25
ANAB	ISO/IEC 17025	L2311	02-13-25
Arkansas DEQ	State	88-0688	06-16-24
Colorado	State	TN00009	02-28-25
Connecticut	State	PH-0223	10-01-26
Florida	NELAP	E87177	06-30-24
Georgia (DW)	State	906	07-27-25
Hawaii	State	NA	07-27-24
Kansas	NELAP	E-10349	10-31-24
Kentucky (DW)	State	90101	12-31-24
Louisiana (All)	NELAP	83979	06-30-24
Louisiana (DW)	State	LA019	12-31-24
Maryland	State	277	03-31-25
Michigan	State	9933	07-27-25
Nevada	State	TN00009	07-31-24
New Hampshire	NELAP	2999	01-17-25
New Jersey	NELAP	TN001	07-01-24
New York	NELAP	10781	03-31-25
North Carolina (DW)	State	21705	07-31-24
North Carolina (WW/SW)	State	64	12-31-24
Oklahoma	State	9415	08-31-24
Oregon	NELAP	TNI0189	01-01-25
Pennsylvania	NELAP	68-00576	12-31-24
Tennessee	State	02014	07-27-25
Texas	NELAP	T104704380-23-18	08-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	525-22-279-18762	10-06-25
Utah	NELAP	TN00009	07-31-24
Virginia	NELAP	460176	09-14-24
Washington	State	C593	01-19-25
West Virginia (DW)	State	9955C	12-31-24
West Virginia DEP	State	345	04-30-25
Wisconsin	State	998044300	08-31-24

Method Summary

Client: SCS Engineers
Project/Site: Blackhawk Junction

Job ID: 140-36535-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	EET KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000



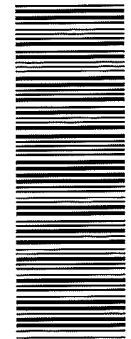
Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.



Environment Testing
TestAmerica

Client Contact Information		Client Project Manager: <u>Rob Longley</u>		Samples Collected By: <u>Erin Schaefer</u>		TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica		
Company Name: <u>SIS Engineers</u>	Phone: <u>608-312-3015</u>	Phone: <u>608-312-3015</u>	COOC No.:	of COCs		TALS Project #:		
Address: <u>2810 Valley Dr</u>	Email: <u>longley@sisengineers.com</u>	Email: <u>longley@sisengineers.com</u>	For Lab Use Only:		Walk-in Client:			
City/State/Zip: <u>Madison, WI 53718</u>	Site Contact:	Site Contact:	Lab Sampling:		Job / SDG No.:			
Phone:	Tel/Fax:	Tel/Fax:	Analysis Turnaround Time		(See below for Add'l Items)			
FAX:	Standard (Specify):	Rush (Specify):	TO-14/15 (Standard / Low Level)		Other (Please specify in notes section)			
Project Name: <u>Healthcare Junction</u>	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	
P O #	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Canister ID	
	<u>127 South Downsview St. IA</u>	<u>4/24/24</u>	<u>8:32</u>	<u>4/25</u>	<u>8:35</u>	<u>-7</u>	<u>11551</u>	<u>12518</u>
	<u>127 South Downsview St. DA</u>	<u>4/24</u>	<u>9:47</u>	<u>4/25</u>	<u>8:37</u>	<u>-8</u>	<u>10443</u>	<u>17362</u>
	<u>Custody Seal Intact</u>							
	<u>Received Ambient</u>							
	<u>DN 4/29/24</u>							
	<u>1 Cooler Fed Ex 7267 6050 5400 G</u>							
	<u>2 Cans (2 Flowys (2 Fz) (0.85) / 2 C.O.s</u>							
Sample Identification		Temperature (Fahrenheit)	Pressure (inches of Hg)		Other (Please specify in notes section)			Sample Specific Notes:
		Start Stop	Start Stop					
		Interior	Interior					
		Ambient	Ambient					
		Start Stop	Start Stop					
		Interior	Interior					
		Ambient	Ambient					
Special Instructions/QC Requirements & Comments:								
<u>Project #: 25221094</u>								
Samples Shipped by: <u>SIS/Fed Ex</u>		Date / Time: <u>4/25/24 18:00</u>		Samples Received by: <u>Dennis Huel ETA KNY</u>		Date / Time: <u>4/29/24 16:00</u>		
Samples Relinquished by:		Date / Time:		Received by:		Date / Time:		
Relinquished by:		Date / Time:		Received by:		Date / Time:		
Lab Use Only:		Shipper Name:		Opened by:		Condition:		



140-36535 Chain of Custody



EUROFINS KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	<input checked="" type="checkbox"/>				
2. Were ambient air containers received intact?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Containers, Broken	
3. The coolers/containers custody seal if present, is it intact?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/> Checked in lab <input type="checkbox"/> Yes <input type="checkbox"/> NA	
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : _____ Correction factor: _____	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/> Cooler Out of Temp, Client Contacted, Proceed/Cancel <input type="checkbox"/> Cooler Out of Temp, Same Day Receipt	
5. Were all of the sample containers received intact?	<input checked="" type="checkbox"/>			<input type="checkbox"/> Containers, Broken	
6. Were samples received in appropriate containers?	<input checked="" type="checkbox"/>			<input type="checkbox"/> Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	<input checked="" type="checkbox"/>			<input type="checkbox"/> COC & Samples Do Not Match <input type="checkbox"/> COC Incorrect/Incomplete <input type="checkbox"/> COC Not Received	
8. Were all of the samples listed on the COC received?	<input checked="" type="checkbox"/>			<input type="checkbox"/> Sample Received, Not on COC <input type="checkbox"/> Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	<input checked="" type="checkbox"/>			<input type="checkbox"/> COC; No Date/Time; Client Contacted	Labeling Verified by: _____ Date: _____
10. Was the sampler identified on the COC?	<input checked="" type="checkbox"/>			<input type="checkbox"/> Sampler Not Listed on COC	
11. Is the client and project name/# identified?	<input checked="" type="checkbox"/>			<input type="checkbox"/> COC Incorrect/Incomplete	
12. Are tests/parameters listed for each sample?	<input checked="" type="checkbox"/>			<input type="checkbox"/> COC No tests on COC	pH test strip lot number: _____
13. Is the matrix of the samples noted?	<input checked="" type="checkbox"/>			<input type="checkbox"/> COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/> COC Incorrect/Incomplete	Box 16A: pH Preservation Box 18A: Residual Chlorine
15. Were samples received within holding time?	<input checked="" type="checkbox"/>			<input type="checkbox"/> Holding Time - Receipt	Preservative: _____
16. Were samples received with correct chemical preservative (excluding Encore)?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/> pH Adjusted; pH Included (See box 16A) <input type="checkbox"/> Incorrect Preservative	Lot Number: _____ Exp Date: _____ Analyst: _____ Date: _____ Time: _____
17. Were VOA samples received without headspace?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/> Headspace (VOA only) <input type="checkbox"/> Residual Chlorine	
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
19. For 1613B water samples is pH<9?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/> If no, notify lab to adjust	
20. For rad samples was sample activity info. Provided?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/> Project missing info	
Project #: <u>14007289</u> PM Instructions: _____					
Sample Receiving Associate: <u>Dan Hutz</u> Date: <u>4/30/24</u>					



Summa Canister Dilution Worksheet

Client: SCS Engineers
 Project/Site: Blackhawk Junction

Job No.: 140-36535-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Final Pressure Gauge ID	Date	Analyst Initials
140-36535-2	0	-7.1	0.76	0.00	1.1	1.07	0.00		1.41	1.41	G5	04/30/24 9:44	ACE

Formulae:

- Preadjusted Volume (L) = ((Preadjusted Pressure ("Hg) + 29.92 "Hg) * Vol L) / 29.92 "Hg
- Adjusted Volume (L) = ((Adjusted Pressure (psig) + 14.7 psig) * Vol L) / 14.7 psig
- Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

- 29.92 "Hg = Standard atmospheric pressure in inches of Mercury ("Hg)
- 14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

