LANDAU ASSOCIATES

TECHNICAL MEMORANDUM

TO: Dale Myers, Washington State Department of Ecology

FROM: John McCorkle

DATE: November 13, 2023

RE: **Additional Data Transmittal – Indoor Air and Groundwater Conditions**
Carson Cleaners Cleanup Site
4701 Brooklyn Avenue NE
Seattle, Washington
CSID No. 14878

INTRODUCTION AND BACKGROUND

Landau Associates, Inc. (Landau) prepared this technical memorandum, which summarizes recent indoor air and groundwater sampling activities conducted at and in the vicinity of the Christ Episcopal Church (the Church), located at 4548 Brooklyn Avenue NE in Seattle, Washington. The Church is located immediately southeast of the location of the former Carson Cleaners that is known to be a source of dry-cleaner contamination in soil and groundwater in the area and therefore the data collected are pertinent to the Carson Cleaners Cleanup Site (Carson Cleaners Site). This technical memorandum and accompanying sampling data are being submitted for consideration by the Washington State Department of Ecology (Ecology) and inclusion in its file for the Carson Cleaners Site.

In 2022, a former parking lot located immediately south of the Church at 4536 Brooklyn Avenue NE was redeveloped by a third-party developer into a nine-story commercial building. The redevelopment activities included dewatering activities as part of the excavation for the project. Certain sampling activities have been conducted to assess whether the dewatering was influencing the migration of the groundwater contamination from the Carson Cleaners Site and whether there are any indoor air quality concerns in the Church (because its basement is used as a childcare facility and users of the facility may be more sensitive to indoor air quality issues from the Carson Cleaners Site). The sampling activities included the following:

- In May 2022, a new groundwater monitoring well (MW101) was installed in the street on the southeast corner of the intersection of Brooklyn Avenue NE and NE 47th Street.
- Groundwater monitoring and sampling activities commenced in June 2022, with periodic samples collected from new well MW101 (through February 2023) and existing groundwater monitoring well MW21 (sampling continues).
- Indoor air quality sampling inside the Church, including ambient air sampling.

SAMPLING ACTIVITY SUMMARY

Urban Environmental Partners LLC (UEP), an environmental consultant representing the developer of the 4536 Brooklyn Avenue NE property, conducted indoor air and ambient air sampling in the Church, and groundwater sampling events at monitoring wells MW101 and MW21 in June, July, September, November, and December of 2022, as well as January and February of 2023. Indoor air and ambient air samples were collected from the northwestern corner of the Church basement and outside the Church building, respectively. Groundwater samples were collected from monitoring well MW21, which is located in the sidewalk right-of-way immediately northeast of the Church, and from MW101, which is located in the southeastern corner of the intersection of Brooklyn Avenue NE and NE 47th Street. The indoor air, ambient air, and groundwater samples were all submitted for laboratory analysis for tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cDCE), trans-1,2-dichloroethene, and vinyl chloride (VC). Analytical results from the UEP sampling events are included in Attachment 1. UEP's sampling stopped following the termination of dewatering activities for the redevelopment project.

SLR, an environmental consultant representing the Church, then continued to conduct monthly indoor air, ambient air, and groundwater sampling events from April 2023 through September 2023. Indoor air and ambient air samples were collected from the northeastern corner of the Church basement and outside of the Church building, respectively. Groundwater samples were collected from well MW21. Indoor and ambient air samples were submitted for laboratory analysis for several volatile organic compounds including PCE, TCE, cDCE, and VC. Groundwater samples were submitted for laboratory analysis for PCE and TCE. Analytical results from the SLR sampling events are included in Attachment 1.

Analytical results were compared to Ecology's Model Toxics Control Act (MTCA) screening levels. Indoor air and ambient air samples collected by UEP were compared to MTCA Method B Commercial cleanup levels (CULs), per modification by MTCA Equation 750-2, while air samples collected by SLR were compared to MTCA Vapor Intrusion Commercial Worker Indoor Air Screening Levels. Groundwater samples collected by both UEP and SLR were compared to MTCA Method A CULs for Unrestricted Land Use.

The laboratory analytical reports are included in Attachment 1.

SAMPLING RESULTS

The analytical results for the indoor air and ambient air samples collected by both UEP and SLR were either below laboratory detection limits or below the applicable screening levels for all of the chemicals analyzed for in each of the 2022 and 2023 sampling events, though detections of TCE were noted in indoor air at levels well below applicable screening levels.

The groundwater analytical results for the UEP sampling events at MW101 detected one minor exceedance of VC (0.34 micrograms per liter [µg/L]), which was above the MTCA Method A CUL (0.2 µg/L). All other groundwater analytical results for this well during each of the UEP sampling events were either below laboratory detection limits or below the applicable screening levels.

Groundwater analytical results for the UEP sampling events at MW21 in early and late November 2022 detected concentrations of VC that exceeded the MTCA Method A CUL. Concentrations of the other analytes sampled during the June through late November 2022 sampling events were either below laboratory detection limits or below the applicable screening levels. Dewatering activities reportedly commenced at the 4536 Brooklyn Avenue NE property in November 2022 and continued through February 2023. The groundwater sampling results from early December 2022 show an increase in the concentrations of each of the analytes sampled at MW21. Concentrations of PCE (7.8 µg/L), TCE (350 µg/L), c-DCE (180 µg/L), and VC (12 µg/L) exceeded the applicable MTCA Method A CULs (5 µg/L, 5 µg/L, 16 µg/L, and 0.2 µg/L, respectively). Subsequent sampling events in January and February 2023 also identified regulatory exceedances for these analytes.

Groundwater analytical results for the SLR sampling events at MW21 from April through September 2023 detected PCE and TCE at concentrations above the applicable screening levels in each of the six sampling events. The highest exceedances reported by SLR for both PCE and TCE occurred during the first two SLR sampling events in April and May 2023, with PCE and TCE concentrations of 9.9 µg/L (April) and 745 µg/L (May), respectively, compared to the MTCA Method A CUL of 5.0 µg/L for both analytes.

It should also be noted that the depth to groundwater at MW21 was recorded as 16.35 feet (ft) below ground surface (bgs) during the June 2022 sampling event. The depth to groundwater increased to 17.75 ft bgs by late November 2022, and increased again to 18.06 ft bgs in December 2022, with the increased depth roughly coinciding with the timing of the dewatering activities on the 4536 Brooklyn Avenue NE property to the south of the Church. The depth to groundwater has been recorded as at least 18 ft bgs in monitoring events from December 2022 through the most recent event in September 2023.

Groundwater monitoring results indicate that dissolved-phase TCE concentrations in monitoring well MW21 remain well above the applicable screening levels. These data have also been provided to Anchor QEA, LLC, the consultant representing the Carson Cleaners Site, and Landau anticipates that the presence of this TCE contamination in MW21 will be incorporated into the understanding of the overall Carson Cleaners Site.

USE OF THIS TECHNICAL MEMORANDUM

This technical memorandum has been prepared for the exclusive use of Christ Episcopal Church and applicable regulatory agencies. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau, shall be at the user's sole risk. Landau warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. Landau makes no other warranty, either express or implied.

This document has been prepared under the supervision and direction of the following key staff.

LANDAU ASSOCIATES, INC.

John McCorkle
Principal

JLB/JHM/ccy
P:\2219\001\010\R\Ecology Data Transmittal TM\Landau_CEC Indoor Air GW Conditions_tm - 11-13-23.docx

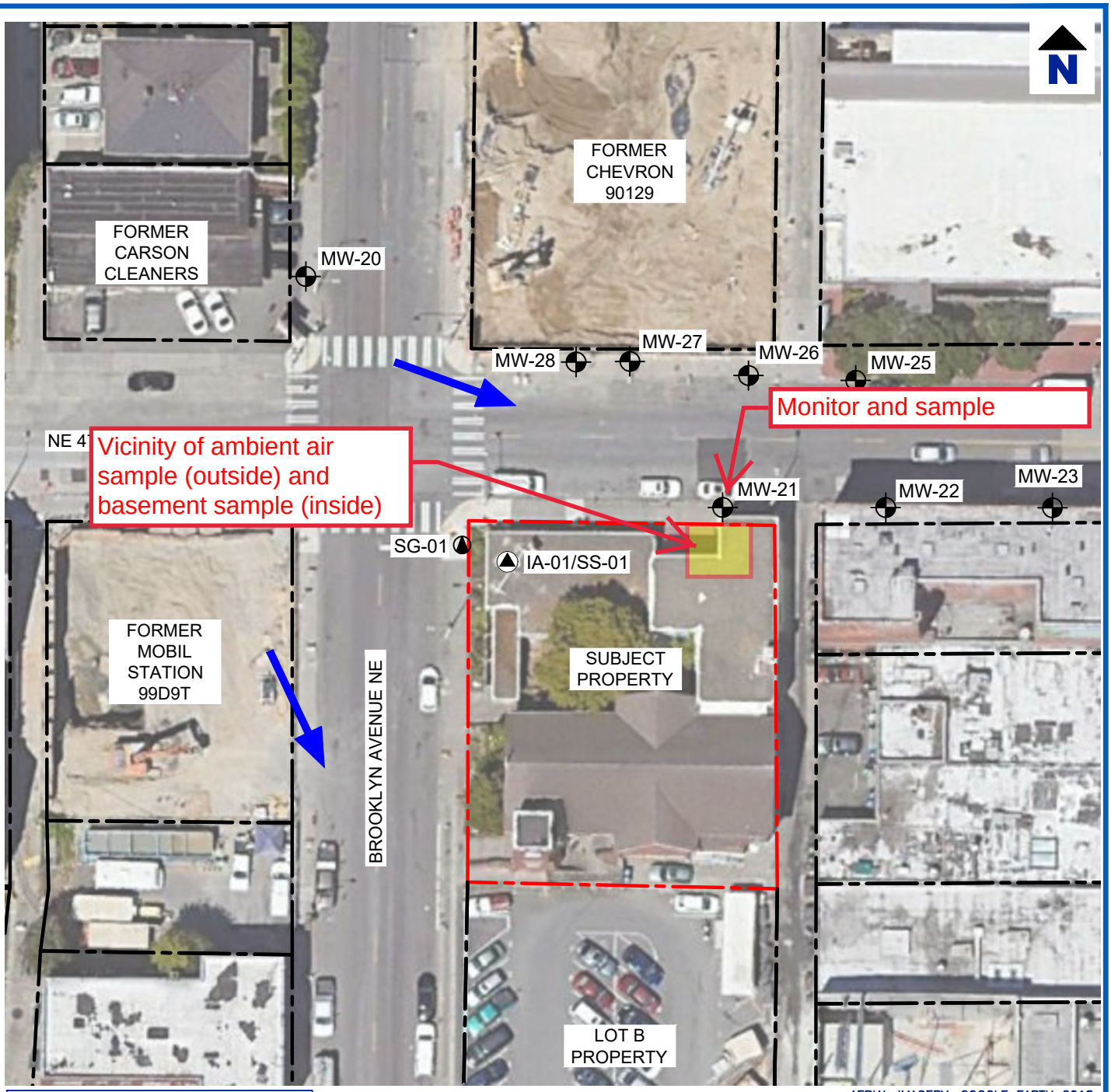
cc: The Reverend Shelly Fayette, Christ Episcopal Church

Attachment

Attachment 1: UEP/SLR Data Package

ATTACHMENT 1

UEP/SLR Data Package



AERIAL IMAGERY: GOOGLE EARTH 2018

NOTES

1. ALL SITE FEATURES ARE APPROXIMATE. NOT A SURVEY
2. SITE FEATURES BASED ON OCTOBER 5, 2020 ANCHOR QEA FIGURE 2, JULY 23, 2020 ASSOCIATED EARTH SCIENCES INC. FIGURE 1, AND OCTOBER 28, 2020 LEIDOS FIGURE 1.

0 50' 100'

LEGEND

- MW-26 — EXISTING GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- SG-01 — SOIL VAPOR SAMPLE LOCATION AND DESIGNATION
- IA-01/SS-01 — NESTED INDOOR AIR AND SUB-SLAB GAS SAMPLE LOCATION AND DESIGNATION
- SUBJECT PROPERTY BOUNDARY
- PROPERTY BOUNDARY
- GROUNDWATER FLOW DIRECTION INFERRED BY OTHERS

CHRISTEPISCOPAL CHURCH PROPERTY
4548 BROOKLYN AVENUE NORTHEAST
SEATTLE, WASHINGTON

Drawing: SITE PLAN

Date: January 19, 2021
Scale: AS SHOWN
Fig. No. 1
File Name: 01-02.dwg
Project No. 128.02216.00002

Last Saved: February 03, 2021 4:28:24 PM by slosleben Drawing path: N:\Bothell\1 PROJECTS\Christ Episcopal\Figures\01-02.dwg

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Table 1
Groundwater Analytical Results for Chlorinated VOCs
4548 Brooklyn Ave Northeast
Seattle, Washington

Boring Well ID	Sample ID	Sampled By	Date Sampled	Analytical Results[1] (micrograms per liter)				
				Tetrachloroethene PCE	Trichloroethene TCE	Cis-1,2-Dichloroethene c-DCE	Trans-1,2-Dichloroethene t-DCE	Vinyl Chloride VC
2022 Monitoring Well Samples								
MW21	MW21/6-1	UEP/JF	06/01/22	<0.2	<0.1	<1	<1	<0.02
MW21	MW21/6-22	UEP/MG	06/22/22	<1	<0.5	<1	<1	<0.02
MW21	MW21/7-14	UEP/MG	07/14/22	<1	<0.5	<1	<1	<0.02
MW21	MW21/9-15	UEP/MG	09/15/22	<1	<0.5	<1	<1	<0.02
MW21	MW21/11-09	UEP/JF	11/09/22	<1	<0.5	**1.9**	**<1**	**0.29**
MW21	MW21/11-23	UEP/JF	11/23/22	<1	**1.7**	**8.9**	**1.4**	**2.3**
MW21	MW21/12-14	UEP/JF	12/14/22	**7.8**	**350**	**180**	**83**	**12**
MW21	MW21/1-11 -23	UEP/JF	01/11/23	**9 j**	**450**	**270**	**120**	**18**
MW21	MW21/2-15-23	UEP/JF	02/15/23	**10.0**	**570**	**320**	**120**	**17**
MW101	MW101/6-1	UEP/JF	06/01/22	<0.2	**3.3**	**4.6**	**6.3**	**0.19**
MW101	MW101/6-22	UEP/MG	06/22/22	<1	<0.5	<1	<1	**0.07**
MW101	MW101/7-14	UEP/MG	07/14/22	<1	**2.0**	**7.3**	**6.3**	**0.34**
MW101	MW101/9-15	UEP/MG	09/15/22	<1	<0.5	<1	<1	<0.02
MW101	MW101/11-09	UEP/JF	11/09/22	<1	<0.5	<1	<1	<0.02
MW101	MW101/11-23	UEP/JF	11/23/22	<1	<1	<0.5	<1	<1
MW101	MW101/12-14	UEP/JF	12/14/22	<1	**0.94**	<1	**1.4**	< 0.02
MW101	MW101/1-11-23	UEP/JF	01/11/23	<1	**1.0**	<1	**1.5**	< 0.02
MW101	MW101/2-15-23	UEP/JF	02/15/23	<1	**0.8**	<1	**1.1**	< 0.02
MTCA GW Screening Level (SL) - Method C for Vapor Intrusion Concern:				**25**	**1.4**	**NE**	**170**	**120**
MTCA Cleanup Level (CUL) for Groundwater [2,3]				**5**[2]	**5**[2]	**16**[3]	**160**[3]	**0.2**[2]

NOTES:

RED denotes concentration exceeds MTCA cleanup level (CUL) for groundwater.

Bold denotes that compound was detected but below the CUL.

[1]Samples analyzed by EPA Method 8260C.

[2]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 720-1 Method A Cleanup Levels for Groundwater, revised February, 2021.

[3]MTCA Cleanup Regulation, Chapter 173-340 of WAC, Groundwater, Method B, Non-cancer, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx> (February 2021 Update) .

-- = not analyzed/not applicable

< = not detected at a concentration exceeding the laboratory reporting li

NE = Not Established

UEP = Urban Environmental Partners llc

MTCA = Washington State Model Toxics Control Act

CUL = Cleanup Level

EPA = U.S. Environmental Protection Agency

WAC = Washington Administrative Code

CLARC = Cleanup Levels and Risk Calculations

Table 2
Groundwater Sample Analytical Results
Christ Episcopal Church
4548 Brooklyn Avenue NE
Seattle, Washington

Monitoring Well Number	Sample ID	Date Collected	VOCs[a]	
			Tetrachloroethene (PCE)	Trichloroethene (TCE)
MTCA Method A Cleanup Levels[b]			5.0	5.0
MW-21	MW-21-0423	04/05/23	**9.9**	**731**
	MW-21-0523	05/03/23	**9.0**	**745**
	MW-21-0623	06/06/23	**7.3 J**	**620**
	MW-21-0723	07/06/23	**6.7 J**	**650**
	MW-21-0823	08/08/23	**7.6 J**	**650**
	MW-21-0923	09/07/23	**7.7 J**	**690**

Notes:
All values in micrograms per liter (µg/L).
This table only includes the detected analytes that have MTCA Method A groundwater cleanup levels.
Values in bold and red represent concentrations above the MTCA Method A groundwater cleanup levels.
[a] Analyzed by EPA Method 8260D.
[b] Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chater 173-340 WAC), table 720-1, Method A Cleanup Levels for Groundwater

Laboratory Data Qualifiers:
[J] The analyte concentration is reported below the standard reporting limit. The reported concentration is an estimate.

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Table 2
Indoor Air Sample Analytical Results for Chlorinated Volatile Organic Compounds (CVOCs)
4548 Brooklyn Ave NE
Seattle, WA

Sample Type	Sample ID	Sampled By and Duration	Date Sampled	Chlorinated Volatile Organic Compounds (CVOCs) in µg/M^3				
				PCE	TCE	cis-DCE	trans-DCE	VC
Ambient Air Sample Results (µg/M^3)								
Ambient Air	*Ambient 6-1*	*UEP - 8 Hour TWA*	6/1/2022	3.6	< 0.11	< 0.4	< 0.4	< 0.26
Ambient Air	*Ambient 6-22*	*UEP - 8 Hour TWA*	6/22/2022	< 6.8	< 0.11	< 0.4	< 0.4	< 0.26
Ambient Air	*Ambient 7-14*	*UEP - 8 Hour TWA*	7/14/2022	< 1.4	< 0.16	< 0.59	< 0.59	< 0.27
Ambient Air	*Ambient 9-15*	*UEP - 8 Hour TWA*	9/15/2022	< 9.6	< 0.27	< 2.0	< 2.0	< 0.26
Ambient Air	*Ambient 12-14*	*UEP - 8 Hour TWA*	12/14/2022	< 6.8	< 0.11	< 0.40	< 0.4	< 0.26
Ambient Air	*Ambient 1-11-23*	*UEP - 8 Hour TWA*	1/11/2023	< 6.8	< 0.11	< 0.40	< 0.4	< 0.26
Ambient Air	***Ambient 2-15-23***	*UEP - 8 Hour TWA*	1/11/2023	< 5.0 (j)	< 0.16	< 0.59	< 0.59	< 0.19 (j)
Basement Samples - Indoor Air Values[1] (µg/M^3)								
Indoor Air - Basement - W	Basement 6-1	*UEP - 8 Hour TWA*	6/1/2022	0.0[1]	< 0.11	< 0.4	< 0.4	< 0.26
Indoor Air - Basement - W	*Basement 6-22*	*UEP - 8 Hour TWA*	6/22/2022	< 6.8	< 0.11	< 0.4	< 0.4	< 0.26
Indoor Air - Basement - W	*Basement 7-14*	*UEP - 8 Hour TWA*	7/14/2022	< 9.6	< 0.16	< 0.59	< 0.59	< 0.27
Indoor Air - Basement - W	*Basement 9-15*	*UEP - 8 Hour TWA*	9/15/2022	< 9.6	< 0.27	< 1.6	< 1.6	< 0.26
Indoor Air - Basement - W	*Basement 12-14*	*UEP - 8 Hour TWA*	12/14/2022	< 6.8	< 0.11	< 0.4	< 0.4	< 0.26
IA - Basement - West	*Basement-W 1-11-23*	*UEP - 8 Hour TWA*	1/11/2023	< 6.8	< 0.11	< 0.4	< 0.4	< 0.26
IA - Basement - West	***Basement-W 2-15-23***	*UEP - 8 Hour TWA*	2/15/2023	< 5.0 (j)	< 0.16	< 0.59	< 0.59	< 0.19 (j)
IA - Basement - East	*Basement-E 1-11-23*	*UEP - 8 Hour TWA*	1/11/2023	< 6.8	< 0.11	< 0.4	< 0.4	< 0.26
IA - Basement - East	***Basement-E 2-15-23***	*UEP - 8 Hour TWA*	2/15/2023	< 5.0 (j)	< 0.16	< 0.59	< 0.59	< 0.19 (j)
MTCA IA CULs:								
Indoor Air - Commercial Use[2] - CUL in µg/M^3		**Indoor Air CULs[2]:**		**32**	**2.1**	**NE**	**NE**	**1.0**

Notes

Red denotes concentration exceeds MTCA IA Commercial Cleanup Level (CUL).

Blue denotes detected concentration that is above the respective laboratory method but

1- When detected, the Indoor Air sample contaminant value will be adjusted by subtracting the ambient air sample value.

2 - MTCA Method B - Commercial Levels, per modification, MTCA Equation 750-2 iaw Implementation Memo 21 (November 2018).

CVOCs analyzed by EPA Method TO-15

< = less than method reporting limit shown.

-- or NA = not analyzed.

IA = Indoor Air

PCE = Perchloroethylene/Tetrachoroethylene

TCE = Trichloroethylene

VC = Vinyl Chloride

TCE = Trichloroethylene

cis-DCE = cis-1,2-dichloroethylene

trans-DCE = trans-1,2-dichloroethylene

CVOCs = Chlorinated Volatile Organic Compounds

CUL = Cleanup Level

Table 1
Indoor Air Sample Analytical Results
Christ Episcopal Church
4548 Brooklyn Avenue NE
Seattle, Washington

Sample Location ID	Sample Location Address	Sample Date	Analytical Results[1] (µg/m^3)										
			PCE	TCE	Chloroethane	1,1-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethane	cis-1,2-DCE	1,2-Dichloroethane (EDC)	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Vinyl Chloride
Indoor Air Sample Analytical Results													
IA-1	4548 Brooklyn Ave. NE	04/05/23	<6.8	0.35	<2.6	<0.4	<0.4	<0.4	<0.4	0.19	<0.55	<0.055	<0.26
		05/03/23	<6.8	<0.11[J]	<2.6	<0.4	<0.4	<0.4	<0.4	0.41	<0.55	<0.055[J]	<0.26
		06/06/23	<6.8	<0.11	<2.6	<0.4	<0.4	<0.4	<0.4	0.42	<0.55	<0.055	<0.26
		07/06/23	<6.8	0.47	<2.6	<0.4	<0.4	<0.4	<0.4	1.2	<0.55	<0.055	<0.26
		08/08/23	<7.5	0.82	<2.9	<0.44	<0.44	<0.45	<0.44	0.96	<0.6	<0.06	<0.26 [J]
		09/07/23	<6.8	0.41	<2.6	<0.4	<0.4	<0.4	<0.4	0.71	<0.55	<0.055	<0.26
Ambient Air Sample Analtyical Results													
AA-1	4548 Brooklyn Ave. NE	04/05/23	<6.8	0.24	<2.6	<0.4	<0.4	<0.4	<0.4	0.065	<0.55	<0.055	<0.26
		05/03/23	<6.8	0.69	<2.6	<0.4	<0.4	<0.4	<0.4	0.077[J]	<0.55	<0.055[J]	<0.26
		06/06/23	<6.8	0.83	<2.6	<0.4	<0.4	<0.4	<0.4	0.085	<0.55	<0.055	<0.26
		07/06/23	<6.8	1.1	<2.6	<0.4	<0.4	<0.4	<0.4	0.68	<0.55	<0.055	<0.26
		08/08/23	<7.5	1.2	<2.9	<0.44	<0.44	<0.45	<0.44	0.18	<0.6	0.084	<0.26 [J]
		09/07/23	<6.8[J]	0.67	<4.5	<0.67	<0.67	<0.69	<0.67	0.089	<0.93	<0.093	<0.26 [J]
MTCA Vapor Intrusion Worker Indoor Air Screening Levels			44.9[2]	2.85[2]	38,900[3]	779[3]	156[3]	7.3[2]	156[3]	27.3[2]	19,500[3]	0.73[2]	1.33[2]

Notes:
All values in micrograms per cubic meter (µg/m^3)
<X.X indicates not detected at a concentration exceeding the laboratory reporting limit of X.X µg/m^3
Values in bold and red represent concentrations above the Screening Levels

[1]Analyzed by EPA Method TO-15.
[2]MTCA Vapor Intrusion Worker indoor air cleanup levels, cancer risk driver, Washington State Department of Ecology's (Ecology's) Cleanup Levels and Risk Calculations (CLARC) Master Table, January
[3]MTCA Vapor Intrusion Worker indoor air cleanup levels, non-cancer risk driver, Ecology's CLARC Master Table, January 2023.

Laboratory Data Qualifiers:
[J]The analyte concentration is reported below the standard reporting limit. The reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

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February 17, 2023

John Funderburk, Project Manager
Urban Environmental Partners
2324 1st Ave, Suite 203
Seattle, WA 98121

Dear Mr Funderburk:

Included are the results from the testing of material submitted on February 15, 2023 from the TS CEC, F&BI 302205 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Urban Env Partners Data (UEP)
UEP0217R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 15, 2023 by Friedman & Bruya, Inc. from the Urban Environmental Partners TS CEC, F&BI 302205 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Urban Environmental Partners
302205 -01	MW101
302205 -02	MW21

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW101	Client:	Urban Environmental Partners
Date Received:	02/15/23	Project:	TS CEC, F&BI 302205
Date Extracted:	02/15/23	Lab ID:	302205-01
Date Analyzed:	02/15/23	Data File:	021545.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	78	126
Toluene-d8	99	84	115
4-Bromofluorobenzene	95	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.02
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	1.1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<0.2
1,1,1-Trichloroethane	<1
Trichloroethene	0.81
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW21	Client:	Urban Environmental Partners
Date Received:	02/15/23	Project:	TS CEC, F&BI 302205
Date Extracted:	02/15/23	Lab ID:	302205-02 1/10
Date Analyzed:	02/15/23	Data File:	021546.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	110	78	126
Toluene-d8	102	84	115
4-Bromofluorobenzene	93	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	17
Chloroethane	<10
1,1-Dichloroethene	<10
Methylene chloride	<50
trans-1,2-Dichloroethene	120
1,1-Dichloroethane	<10
cis-1,2-Dichloroethene	320
1,2-Dichloroethane (EDC)	<2
1,1,1-Trichloroethane	<10
Trichloroethene	570
Tetrachloroethene	10

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Urban Environmental Partners
Date Received:	Not Applicable	Project:	TS CEC, F&BI 302205
Date Extracted:	02/15/23	Lab ID:	03-0330 mb
Date Analyzed:	02/15/23	Data File:	021523.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	109	78	126
Toluene-d8	102	84	115
4-Bromofluorobenzene	98	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.02
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<0.2
1,1,1-Trichloroethane	<1
Trichloroethene	<0.5
Tetrachloroethene	<1

Date of Report: 02/17/23
Date Received: 02/15/23
Project: TS CEC, F&BI 302205

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 302179-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	10	<0.02	97	50-150
Chloroethane	ug/L (ppb)	10	<1	97	50-150
1,1-Dichloroethene	ug/L (ppb)	10	<1	101	50-150
Methylene chloride	ug/L (ppb)	10	<5	98	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	103	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	100	50-150
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	100	50-150
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<0.2	103	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	106	50-150
Trichloroethene	ug/L (ppb)	10	<0.5	99	50-150
Tetrachloroethene	ug/L (ppb)	10	<1	115	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	10	93	101	70-130	8
Chloroethane	ug/L (ppb)	10	97	102	70-130	5
1,1-Dichloroethene	ug/L (ppb)	10	101	104	70-130	3
Methylene chloride	ug/L (ppb)	10	97	91	43-134	6
trans-1,2-Dichloroethene	ug/L (ppb)	10	102	106	70-130	4
1,1-Dichloroethane	ug/L (ppb)	10	98	102	70-130	4
cis-1,2-Dichloroethene	ug/L (ppb)	10	99	101	70-130	2
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	102	105	70-130	3
1,1,1-Trichloroethane	ug/L (ppb)	10	104	109	70-130	5
Trichloroethene	ug/L (ppb)	10	97	100	70-130	3
Tetrachloroethene	ug/L (ppb)	10	107	108	70-130	1

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY 02/15/23

302205 VW2

Page # 1 of 1

Report To John Funderburk
Company UEP 11c
Address 2324 1st Ave, Ste 203
City, State, ZIP Seattle, WA 98121
Phone _____ Email _____

SAMPLERS (*signature*): John R F
PROJECT NAME: TS/CEC
PO #:
REMARKS: Chlorinated
INVOICE TO:
Project specific RLs? - Yes / No

TURNAROUND TIME
☐ Standard turnaround
☒ RUSH Friday
Rush charges authorized by: JRF

SAMPLE DISPOSAL
☐ Archive samples
☐ Other _____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260 Chlorinated	PAHs EPA 8270	PCBs EPA 8082					Notes
MW101	01 A-C	2-15-23	9:16	GW	3					X							Chlorinated
MW21	02	2-15-23	10:38	GW	3					X							"

Samples received at 3 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: John R F	John R F underburk	UEP 11c	2-15-23	11:23
Received by:	ANHPHAN	FSB	02/15/23	11:23
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

February 21, 2023

John Funderburk, Project Manager
Urban Environmental Partners
2324 1st Ave, Suite 203
Seattle, WA 98121

Dear Mr Funderburk:

Included are the results from the testing of material submitted on February 15, 2023 from the TS CEC, F&BI 302219 project. There are 7 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Urban Env Partners Data (UEP)
UEP0221R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 15, 2023 by Friedman & Bruya, Inc. from the Urban Environmental Partners TS CEC, F&BI 302219 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Urban Environmental Partners
302219 -01	Ambient 2-15-23
302219 -02	Basement-W 2-15-23
302219 -03	Basement-E 2-15-23

1,2-Dichloroethane (EDC) was detected in the TO-15 method blank at a level greater than one tenth the concentration detected in the samples. The data were flagged accordingly.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Ambient 2-15-23	Client:	Urban Environmental Partners
Date Received:	02/15/23	Project:	TS CEC, F&BI 302219
Date Collected:	02/15/23	Lab ID:	302219-01 1/1.5
Date Analyzed:	02/16/23	Data File:	021611.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.19 j	<0.075 j
Chloroethane	<4	<1.5
1,1-Dichloroethene	<0.59	<0.15
trans-1,2-Dichloroethene	<0.59	<0.15
1,1-Dichloroethane	<0.61	<0.15
cis-1,2-Dichloroethene	<0.59	<0.15
1,2-Dichloroethane (EDC)	0.097 fb	0.024 fb
1,1,1-Trichloroethane	<0.82	<0.15
Trichloroethene	<0.16	<0.03
1,1,2-Trichloroethane	<0.082	<0.015
Tetrachloroethene	<5 j	<0.75 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Basement-W 2-15-23	Client:	Urban Environmental Partners
Date Received:	02/15/23	Project:	TS CEC, F&BI 302219
Date Collected:	02/15/23	Lab ID:	302219-02 1/1.5
Date Analyzed:	02/16/23	Data File:	021612.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.19 j	<0.075 j
Chloroethane	<4	<1.5
1,1-Dichloroethene	<0.59	<0.15
trans-1,2-Dichloroethene	<0.59	<0.15
1,1-Dichloroethane	<0.61	<0.15
cis-1,2-Dichloroethene	<0.59	<0.15
1,2-Dichloroethane (EDC)	0.25 fb	0.061 fb
1,1,1-Trichloroethane	<0.82	<0.15
Trichloroethene	<0.16	<0.03
1,1,2-Trichloroethane	<0.082	<0.015
Tetrachloroethene	<5 j	<0.75 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Basement-E 2-15-23	Client:	Urban Environmental Partners
Date Received:	02/15/23	Project:	TS CEC, F&BI 302219
Date Collected:	02/15/23	Lab ID:	302219-03 1/1.5
Date Analyzed:	02/16/23	Data File:	021613.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.19 j	<0.075 j
Chloroethane	<4	<1.5
1,1-Dichloroethene	<0.59	<0.15
trans-1,2-Dichloroethene	<0.59	<0.15
1,1-Dichloroethane	<0.61	<0.15
cis-1,2-Dichloroethene	<0.59	<0.15
1,2-Dichloroethane (EDC)	0.25 fb	0.061 fb
1,1,1-Trichloroethane	<0.82	<0.15
Trichloroethene	<0.16	<0.03
1,1,2-Trichloroethane	<0.082	<0.015
Tetrachloroethene	<5 j	<0.75 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Urban Environmental Partners
Date Received:	Not Applicable	Project:	TS CEC, F&BI 302219
Date Collected:	Not Applicable	Lab ID:	03-0334 MB
Date Analyzed:	02/16/23	Data File:	021610.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.13 j	<0.05 j
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.065 lc	0.016 lc
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	0.11 lc	0.021 lc
1,1,2-Trichloroethane	0.11 lc	0.021 lc
Tetrachloroethene	<3.4 j	<0.5 j

Date of Report: 02/21/23
Date Received: 02/15/23
Project: TS CEC, F&BI 302219

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 302216-01 1/4.9 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Vinyl chloride	ug/m3	<1.3	<1.3	nm
Chloroethane	ug/m3	<13	<13	nm
1,1-Dichloroethene	ug/m3	<1.9	<1.9	nm
trans-1,2-Dichloroethene	ug/m3	<1.9	<1.9	nm
1,1-Dichloroethane	ug/m3	<2	<2	nm
cis-1,2-Dichloroethene	ug/m3	<1.9	<1.9	nm
1,2-Dichloroethane (EDC)	ug/m3	<0.2	<0.2	nm
1,1,1-Trichloroethane	ug/m3	<2.7	<2.7	nm
Trichloroethene	ug/m3	<0.53	<0.53	nm
1,1,2-Trichloroethane	ug/m3	<0.27	0.27	nm
Tetrachloroethene	ug/m3	<33	<33	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ug/m3	35	117	70-130
Chloroethane	ug/m3	36	119	70-130
1,1-Dichloroethene	ug/m3	54	114	70-130
trans-1,2-Dichloroethene	ug/m3	54	114	70-130
1,1-Dichloroethane	ug/m3	55	117	70-130
cis-1,2-Dichloroethene	ug/m3	54	110	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	120	70-130
1,1,1-Trichloroethane	ug/m3	74	116	70-130
Trichloroethene	ug/m3	73	114	70-130
1,1,2-Trichloroethane	ug/m3	74	121	70-130
Tetrachloroethene	ug/m3	92	116	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased high; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

302219

SAMPLE CHAIN OF CUSTODY

02/15/23 — Page # 1 of 1

Report To John Funder 6w/c
Company UEP llc
Address 2324 1st Ave, Ste203
City, State, ZIP Seattle, WA 98121
Phone _____ Email _____

SAMPLERS (signature): John R Funder
PROJECT NAME & ADDRESS: TS/CEC
PO #:
NOTES: Boys BR Ventilating Chlorinated VOCs
INVOICE TO:

TURNAROUND TIME: (Standard) / RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL: (Default: Clean following final report delivery) / Hold (Fee may apply): _____

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium	Lab ID	Amb. T° 43° F° Notes
Ambient 2-15-23	20542	13966		(IA) / SG	2-15-23	30.	7:52	8.5	4:03			X			-01	30.18 / 39.7°
Basement-W 2-15-23	23229	06603		(IA) / SG	2-15-23	30	7:56	7.0	3:58			X			-02	30.1[illegible] / 48°
Basement-E 2-15-23	21443	06608		(IA) / SG	2-15-23	30	7:58	8.0	4:00			X			-03	30.21 / 51.8°
				IA / SG												
				IA / SG												
				IA / SG												30.13" fin
				IA / SG												64° F
				IA / SG												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: John R Funder	John R Funder 6w/c	UEP llc	2-15-23	17:09
Received by:	VINH	FBI	2-15-23	17:09
Relinquished by:				
Received by:		Samples received at 16 °C		

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Monday, April 17, 2023

Spencer Lo
SLR Corporation-Bothell
22118 20th Ave SE, Suite G202
Bothell, WA 98021

RE: A3D0891 - Christ Episcopal Church - 101.02216.00007

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A3D0891, which was received by the laboratory on 4/6/2023 at 1:45:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Default Cooler	5.5 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Spencer Lo**	**A3D0891 - 04 17 23 2202**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-21-0423	A3D0891-01	Water	04/05/23 10:24	04/06/23 13:45

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Spencer Lo**	**A3D0891 - 04 17 23 2202**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-21-0423 (A3D0891-01RE1)				**Matrix: Water**		**Batch: 23D0310**		
Tetrachloroethene (PCE)	**9.90**	---	4.00	ug/L	10	04/10/23 20:15	EPA 8260D	
Trichloroethene (TCE)	**731**	---	4.00	ug/L	10	04/10/23 20:15	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 80-120 %*	*1*	*04/10/23 20:15*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*04/10/23 20:15*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*112 %*	*80-120 %*	*1*	*04/10/23 20:15*	*EPA 8260D*	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Spencer Lo**	**A3D0891 - 04 17 23 2202**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0310 - EPA 5030C												**Water**
Blank (23D0310-BLK1)			Prepared: 04/10/23 12:00 Analyzed: 04/10/23 14:50									
EPA 8260D												
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*116 %*		*80-120 %*			*"*				
LCS (23D0310-BS1)			Prepared: 04/10/23 12:00 Analyzed: 04/10/23 13:34									
EPA 8260D												
Tetrachloroethene (PCE)	18.4	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
Trichloroethene (TCE)	19.2	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
Duplicate (23D0310-DUP1)			Prepared: 04/10/23 13:14 Analyzed: 04/10/23 16:38									
QC Source Sample: Non-SDG (A3D0859-01)												
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*113 %*		*80-120 %*			*"*				
Matrix Spike (23D0310-MS1)			Prepared: 04/10/23 13:14 Analyzed: 04/10/23 23:24									
QC Source Sample: Non-SDG (A3D0963-05)												
EPA 8260D												
Tetrachloroethene (PCE)	204	---	4.00	ug/L	10	200	ND	102	74-129%	---	---	
Trichloroethene (TCE)	216	---	4.00	ug/L	10	200	ND	108	79-123%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				

Apex Laboratories

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Spencer Lo**	**A3D0891 - 04 17 23 2202**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23D0310							
A3D0891-01RE1	Water	EPA 8260D	04/05/23 10:24	04/10/23 13:14	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

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ANALYTICAL REPORT

SLR Corporation-Bothell	Project: Christ Episcopal Church	
22118 20th Ave SE, Suite G202	Project Number: 101.02216.00007	Report ID:
Bothell, WA 98021	Project Manager: Spencer Lo	A3D0891 - 04 17 23 2202

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

There are No Qualifiers on Sample or QC Data for this report

Apex Laboratories

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC

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ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Spencer Lo**	**A3D0891 - 04 17 23 2202**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

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SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
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Bothell, WA 98021	Project Manager: **Spencer Lo**	**A3D0891 - 04 17 23 2202**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Spencer Lo**	**A3D0891 - 04 17 23 2202**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

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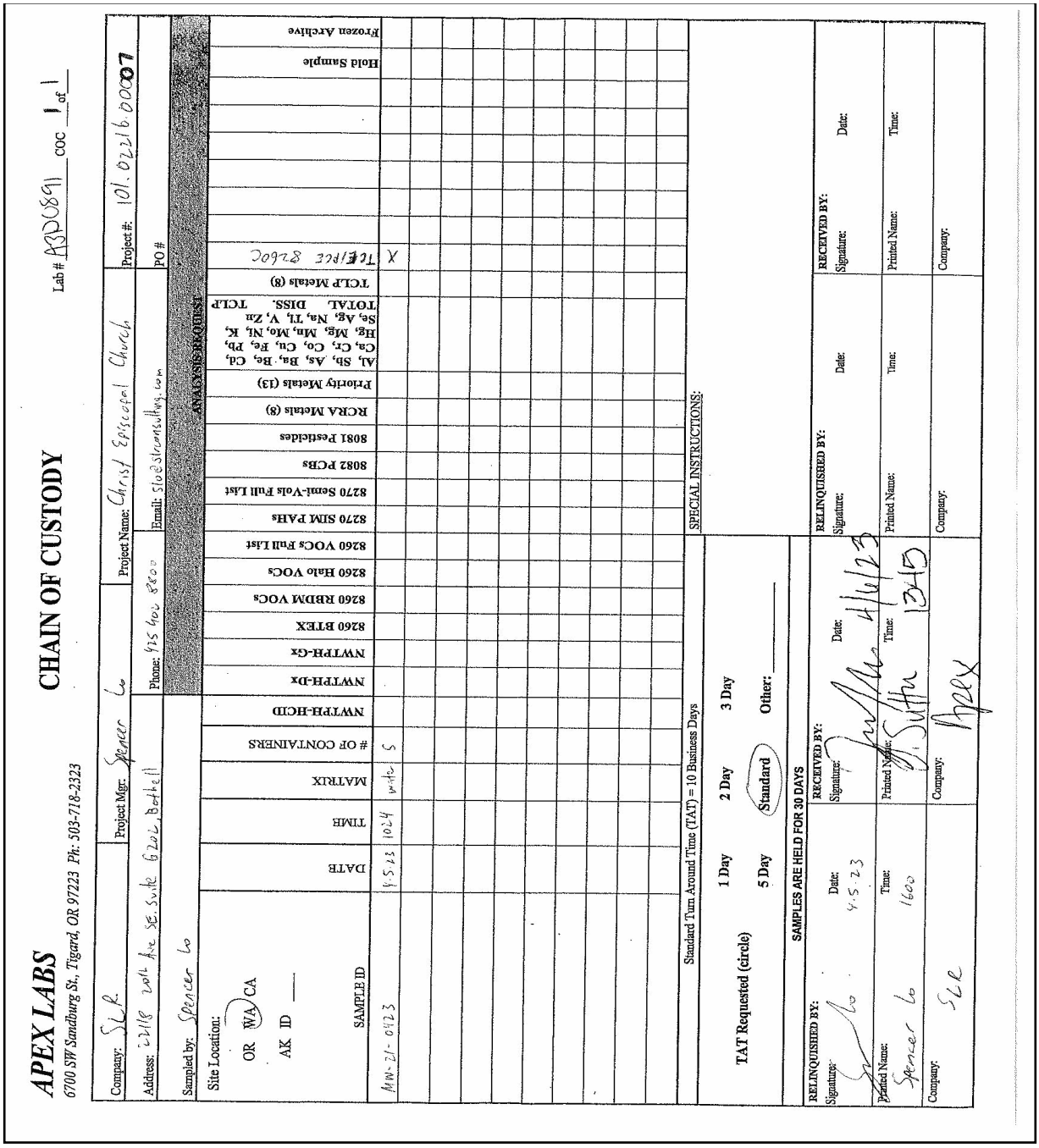
ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Spencer Lo**	**A3D0891 - 04 17 23 2202**



Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Spencer Lo**	**A3D0891 - 04 17 23 2202**

APEX LABS COOLER RECEIPT FORM

Client: SLR Element WO#: A3D0891

Project/Project #: Christ Episcopal Church 101.02216.00007

Delivery Info:

Date/time received: 4/6/23 @ 1345 By: JS

Delivered by: Apex__Client__ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other __

Cooler Inspection Date/time inspected: 4/6/23 @ 1345 By: JS

Chain of Custody included? Yes X No _____

Signed/dated by client? Yes X No _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	5.5						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 4/6/23 @ 13:58 By: AAW

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes X No ___ Comments: _____

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments _____

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X

Comments: _____

Additional information: 39466 8139 7613

Labeled by: AAW Witness: DJS Cooler Inspected by: JS

Form Y-003 R-00

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

April 17, 2023

Spencer Lo, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

Dear Mr Lo:

Included are the results from the testing of material submitted on April 10, 2023 from the Christ Episcopal Church 101.02216.00007, F&BI 304131 project. There are 6 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SLR0417R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 10, 2023 by Friedman & Bruya, Inc. from the SLR International Corp. Christ Episcopal Church 101.02216.00007, F&BI 304131 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
304131 -01	IA-1-0423
304131 -02	AA-1-0423

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-1-0423	Client:	SLR International Corp.
Date Received:	04/10/23	Project:	101.02216.00007, F&BI 304131
Date Collected:	04/05/23	Lab ID:	304131-01
Date Analyzed:	04/11/23	Data File:	041022.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	96	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.19	0.046
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	0.35	0.065
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA-1-0423	Client:	SLR International Corp.
Date Received:	04/10/23	Project:	101.02216.00007, F&BI 304131
Date Collected:	04/05/23	Lab ID:	304131-02
Date Analyzed:	04/11/23	Data File:	041021.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.065	0.016
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	0.24	0.044
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	101.02216.00007, F&BI 304131
Date Collected:	Not Applicable	Lab ID:	03-0721 MB
Date Analyzed:	04/10/23	Data File:	041012.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	97	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.11	<0.02
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Date of Report: 04/17/23
Date Received: 04/10/23
Project: Christ Episcopal Church 101.02216.00007, F&BI 304131

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 304130-03 1/5.4 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Vinyl chloride	ug/m3	<1.4	<1.4	nm
Chloroethane	ug/m3	<14	<14	nm
1,1-Dichloroethene	ug/m3	<2.1	<2.1	nm
trans-1,2-Dichloroethene	ug/m3	<2.1	<2.1	nm
1,1-Dichloroethane	ug/m3	<2.2	<2.2	nm
cis-1,2-Dichloroethene	ug/m3	<2.1	<2.1	nm
1,2-Dichloroethane (EDC)	ug/m3	<0.22	<0.22	nm
1,1,1-Trichloroethane	ug/m3	<2.9	<2.9	nm
Trichloroethene	ug/m3	<0.58	<0.58	nm
1,1,2-Trichloroethane	ug/m3	<0.29	<0.29	nm
Tetrachloroethene	ug/m3	<37	<37	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ug/m3	35	94	70-130
Chloroethane	ug/m3	36	90	70-130
1,1-Dichloroethene	ug/m3	54	100	70-130
trans-1,2-Dichloroethene	ug/m3	54	98	70-130
1,1-Dichloroethane	ug/m3	55	96	70-130
cis-1,2-Dichloroethene	ug/m3	54	95	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	97	70-130
1,1,1-Trichloroethane	ug/m3	74	95	70-130
Trichloroethene	ug/m3	73	98	70-130
1,1,2-Trichloroethane	ug/m3	74	103	70-130
Tetrachloroethene	ug/m3	92	100	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased high; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

304131

SAMPLE CHAIN OF CUSTODY 04/10/23

Report To Spencer Lo

Company SLR

Address 22118 20th Ave SE, Suite G202

City, State, ZIP Bothell, WA

Phone 425-402-8800 Email slo@slrconsulting.com

SAMPLERS (signature)

PROJECT NAME & ADDRESS: Christ Episcopal Church

PO # 101.0226.00007

NOTES:

INVOICE TO

TURNAROUND TIME
- ☑ Standard
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Default: Clean after 3 days
- ☐ Archive (Fee may apply)

SAMPLE INFORMATION

Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	ANALYSIS REQUESTED: TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
IA-1-0423	01	20541	F6601	IA / SG	4.5.23	30	848	9	1642			X				
AA-1-0423	02	18561	F6607	IA / SG	4.5.23	30	956	11	1645			X				
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												

Samples received at 19 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Spencer Lo	SLR	3-10-23	1340
Received by:	ANH PHAN	FSB	03/10/23	13:40
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Thursday, May 18, 2023

Chris Lee
SLR Corporation-Bothell
22118 20th Ave SE, Suite G202
Bothell, WA 98021

RE: A3E1206 - Christ Episcopal Church - 101.02216.00007

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A3E1206, which was received by the laboratory on 5/9/2023 at 11:00:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Default Cooler	1.8	degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Chris Lee**	**A3E1206 - 05 18 23 1703**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-21-0523	A3E1206-01	Water	05/03/23 10:03	05/09/23 11:00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Chris Lee**	**A3E1206 - 05 18 23 1703**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-21-0523 (A3E1206-01RE1)				**Matrix: Water**		**Batch: 23E0514**		
Tetrachloroethene (PCE)	**9.00**	---	2.00	ug/L	5	05/11/23 21:56	EPA 8260D	
Trichloroethene (TCE)	**745**	---	2.00	ug/L	5	05/11/23 21:56	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits: 80-120 %*	*1*	*05/11/23 21:56*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*05/11/23 21:56*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*05/11/23 21:56*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Chris Lee**	**A3E1206 - 05 18 23 1703**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E0441 - EPA 5030C												**Water**
Blank (23E0441-BLK1)			Prepared: 05/10/23 08:45 Analyzed: 05/10/23 11:37									
EPA 8260D												
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*103 %*		*80-120 %*			*"*				
LCS (23E0441-BS1)			Prepared: 05/10/23 08:45 Analyzed: 05/10/23 10:38									
EPA 8260D												
Tetrachloroethene (PCE)	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
Trichloroethene (TCE)	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*87 %*		*80-120 %*			*"*				
Duplicate (23E0441-DUP1)			Prepared: 05/10/23 08:45 Analyzed: 05/10/23 18:51									
QC Source Sample: MW-21-0523 (A3E1206-01)												
EPA 8260D												
Tetrachloroethene (PCE)	ND	---	20.0	ug/L	50	---	11.5	---	---	***	30%	
Trichloroethene (TCE)	**638**	---	20.0	ug/L	50	---	660	---	---	3	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
Matrix Spike (23E0441-MS1)			Prepared: 05/10/23 08:45 Analyzed: 05/10/23 12:58									
QC Source Sample: Non-SDG (A3E1207-02)												
EPA 8260D												
Tetrachloroethene (PCE)	19.8	---	0.400	ug/L	1	20.0	ND	99	74-129%	---	---	
Trichloroethene (TCE)	20.0	---	0.400	ug/L	1	20.0	ND	100	79-123%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*88 %*		*80-120 %*			*"*				

Apex Laboratories

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Chris Lee**	**A3E1206 - 05 18 23 1703**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E0514 - EPA 5030C												**Water**
Blank (23E0514-BLK1)			Prepared: 05/11/23 13:00 Analyzed: 05/11/23 15:37									
EPA 8260D												
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*104 %*		*80-120 %*			*"*				
LCS (23E0514-BS1)			Prepared: 05/11/23 13:00 Analyzed: 05/11/23 14:43									
EPA 8260D												
Tetrachloroethene (PCE)	18.7	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
Trichloroethene (TCE)	19.3	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*87 %*		*80-120 %*			*"*				
Duplicate (23E0514-DUP1)			Prepared: 05/11/23 13:44 Analyzed: 05/11/23 16:58									
QC Source Sample: Non-SDG (A3E1221-08)												
Tetrachloroethene (PCE)	**0.510**	---	0.400	ug/L	1	---	0.520	---	---	2	30%	
Trichloroethene (TCE)	**15.8**	---	0.400	ug/L	1	---	15.8	---	---	0.06	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*115 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*104 %*		*80-120 %*			*"*				
Matrix Spike (23E0514-MS1)			Prepared: 05/11/23 13:44 Analyzed: 05/11/23 23:18									
QC Source Sample: Non-SDG (A3E1272-05)												
EPA 8260D												
Tetrachloroethene (PCE)	19.6	---	0.400	ug/L	1	20.0	ND	98	74-129%	---	---	
Trichloroethene (TCE)	20.4	---	0.400	ug/L	1	20.0	ND	102	79-123%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*85 %*		*80-120 %*			*"*				

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Chris Lee**	**A3E1206 - 05 18 23 1703**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23E0514							
A3E1206-01RE1	Water	EPA 8260D	05/03/23 10:03	05/11/23 11:51	5mL/5mL	5mL/5mL	1.00

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ANALYTICAL REPORT

SLR Corporation-Bothell	Project: Christ Episcopal Church	
22118 20th Ave SE, Suite G202	Project Number: 101.02216.00007	Report ID:
Bothell, WA 98021	Project Manager: Chris Lee	A3E1206 - 05 18 23 1703

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

There are No Qualifiers on Sample or QC Data for this report

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Chris Lee**	**A3E1206 - 05 18 23 1703**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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Philip Nerenberg, Lab Director

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SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Chris Lee**	**A3E1206 - 05 18 23 1703**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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ANALYTICAL REPORT

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Chris Lee**	**A3E1206 - 05 18 23 1703**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

SLR Corporation-Bothell	Project: **Christ Episcopal Church**	
22118 20th Ave SE, Suite G202	Project Number: **101.02216.00007**	**Report ID:**
Bothell, WA 98021	Project Manager: **Chris Lee**	**A3E1206 - 05 18 23 1703**

APEX LABS

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A3E1206 COC 1 of 1

Company: SLR | Project Mgr: Chris Lee | Project Name: Christ Episcopal Church | Project #: 101.02216.00007

Address: 22118 20th Ave SE, Suite G202, Bothell | Phone: 425 402 8800 | Email: clee@slrconsulting.com | PO #

Sampled by: Spencer w/ Emily Hernandez

Site Location: OR WA CA AK ID

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	AL, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	PCE/TCE 8260D							Hold Sample	Frozen Archive
MW-21-0523	5-3-23	1003	water	5																X								

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day, 2 Day, 3 Day, 5 Day, **Standard** (circled), Other: ____

SAMPLES ARE HELD FOR 30 DAYS

SPECIAL INSTRUCTIONS:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: [signature] Date: 5/8/2023	Signature: [signature] Date: 5/8/23	Signature: Date:	Signature: Date:
Printed Name: Emily Hernandez Time: 1700	Printed Name: K Shewmaker Time: 1100	Printed Name: Time:	Printed Name: Time:
Company: SLR	Company: Apex	Company:	Company:

SLR Corporation-Bothell	Project: Christ Episcopal Church	
22118 20th Ave SE, Suite G202	Project Number: 101.02216.00007	Report ID:
Bothell, WA 98021	Project Manager: Chris Lee	A3E1206 - 05 18 23 1703

APEX LABS COOLER RECEIPT FORM

Client: SLR Element WO#: A3E1206

Project/Project #: Christ Episcopal Church / 101.02216.00007

Delivery Info:

Date/time received: 5/9/23 @ ~~1101~~ 1100 aw 5/10/23 By: MO

Delivered by: Apex__Client__ESS__FedEx X UPS__Radio__Morgan__SDS__Evergreen__Other__

Cooler Inspection Date/time inspected: 5/9/23 @ 1101 By: MO

Chain of Custody included? Yes X No ___

Signed/dated by client? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.8						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/(N)) Possible reason why:

Green dots applied to out of temperature samples? Yes/(No)

Out of temperature samples form initiated? Yes/(No)

Sample Inspection: Date/time inspected: 5/9/23 @ 16:09 By: AAW

All samples intact? Yes X No ___ Comments:

Bottle labels/COCs agree? Yes X No ___ Comments:

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments:

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X

Comments:

Additional information: 3980 3971 3790

Labeled by: AAW Witness: DSS Cooler Inspected by: AAW

Form Y-003 R-00

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

May 19, 2023

Chris Lee, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

Dear Mr Lee:

Included are the results from the testing of material submitted on May 5, 2023 from the Christ Episcopal Church PO, F&BI 305114 project. There are 6 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: ckramer@slrconsulting.com
SLR0519R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 5, 2023 by Friedman & Bruya, Inc. from the SLR International Corp. Christ Episcopal Church PO, F&BI 305114 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
305114 -01	IA-1-0523
305114 -02	AA-1-0523

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-1-0523	Client:	SLR International Corp.
Date Received:	05/05/23	Project:	Christ Episcopal Church
Date Collected:	05/03/23	Lab ID:	305114-01
Date Analyzed:	05/15/23	Data File:	051512.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.41	0.10
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.11 j	<0.02 j
1,1,2-Trichloroethane	<0.055 j	<0.01 j
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA-1-0523	Client:	SLR International Corp.
Date Received:	05/05/23	Project:	Christ Episcopal Church
Date Collected:	05/03/23	Lab ID:	305114-02
Date Analyzed:	05/15/23	Data File:	051511.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	102	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.077 j	0.019 j
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	0.69	0.13
1,1,2-Trichloroethane	<0.055 j	<0.01 j
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Christ Episcopal Church
Date Collected:	Not Applicable	Lab ID:	03-1094 mb
Date Analyzed:	05/15/23	Data File:	051510.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	97	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	<0.04 j	<0.01 j
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.11 j	<0.02 j
1,1,2-Trichloroethane	<0.055 j	<0.01 j
Tetrachloroethene	<6.8	<1

Date of Report: 05/19/23
Date Received: 05/05/23
Project: Christ Episcopal Church PO, F&BI 305114

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 304404-01 1/5.3 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Vinyl chloride	ug/m3	<1.4	<1.4	nm
Chloroethane	ug/m3	<14	<14	nm
1,1-Dichloroethene	ug/m3	<2.1	<2.1	nm
trans-1,2-Dichloroethene	ug/m3	<2.1	<2.1	nm
1,1-Dichloroethane	ug/m3	<2.1	<2.1	nm
cis-1,2-Dichloroethene	ug/m3	<2.1	<2.1	nm
1,2-Dichloroethane (EDC)	ug/m3	<0.21	<0.21	nm
1,1,1-Trichloroethane	ug/m3	<2.9	<2.9	nm
Trichloroethene	ug/m3	<0.57	<0.57	nm
1,1,2-Trichloroethane	ug/m3	<0.29	<0.29	nm
Tetrachloroethene	ug/m3	<36	<36	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ug/m3	35	103	70-130
Chloroethane	ug/m3	36	103	70-130
1,1-Dichloroethene	ug/m3	54	101	70-130
trans-1,2-Dichloroethene	ug/m3	54	97	70-130
1,1-Dichloroethane	ug/m3	55	105	70-130
cis-1,2-Dichloroethene	ug/m3	54	95	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	99	70-130
1,1,1-Trichloroethane	ug/m3	74	92	70-130
Trichloroethene	ug/m3	73	103	70-130
1,1,2-Trichloroethane	ug/m3	74	115	70-130
Tetrachloroethene	ug/m3	92	90	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

305114 — 05/05/23 — 1

Report To Chris Lee
Company SLR
Address 22118 20th Ave SE, Suite G102
City, State, ZIP Bothell, WA
Phone 425 402 8800 Email clee@slrconsulting.com

SAMPLERS (signature)

PROJECT NAME & ADDRESS: Christ Episcopal Church

PO #

NOTES: pw CL 5/8/23 pw

INVOICE TO

Page # 1 of 1

TURNAROUND TIME
☒ Standard
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Default: Clean after 3 days
☐ Archive (Fee may apply)

SAMPLE INFORMATION / ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
IA-1-0523	01	21453	F6606	IA / SG	5-3-23	30	916	5	1704			X				
AA-1-0523	02	18566	F5351	IA / SG	5.3.23	30	921	7	1705			X				
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COCTO-15.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Spencer Lo	SLR	5.5.23	1659
Received by:	Joe Mohammed	FBI	05/05/23	1659
Relinquished by:	Samples received at 20 °C			
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

June 15, 2023

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

Dear Mr Kramer:

Included are the results from the testing of material submitted on June 7, 2023 from the Christ Episcopal 101.02216.00007, F&BI 306125 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SLR0615R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 7, 2023 by Friedman & Bruya, Inc. from the SLR International Corp. Christ Episcopal 101.02216.00007, F&BI 306125 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
306125 -01	MW-21-0623

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-21-0623	Client:	SLR International Corp.
Date Received:	06/07/23	Project:	Christ Episcopal 101.02216.00007
Date Extracted:	06/13/23	Lab ID:	306125-01 1/10
Date Analyzed:	06/13/23	Data File:	061317.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	91	78	126
Toluene-d8	96	84	115
4-Bromofluorobenzene	110	72	130

Compounds:	Concentration ug/L (ppb)
Trichloroethene	620
Tetrachloroethene	7.3 j

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Christ Episcopal 101.02216.00007
Date Extracted:	06/13/23	Lab ID:	03-1297 mb
Date Analyzed:	06/13/23	Data File:	061307.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	78	126
Toluene-d8	100	84	115
4-Bromofluorobenzene	104	72	130

Compounds:	Concentration ug/L (ppb)
Trichloroethene	<0.5
Tetrachloroethene	<0.5 j

Date of Report: 06/15/23
Date Received: 06/07/23
Project: Christ Episcopal 101.02216.00007, F&BI 306125

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 306141-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Trichloroethene	ug/L (ppb)	10	<0.5	96	35-149
Tetrachloroethene	ug/L (ppb)	10	1.4	96	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Trichloroethene	ug/L (ppb)	10	97	95	70-130	2
Tetrachloroethene	ug/L (ppb)	10	100	97	70-130	3

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

306125

SAMPLE CHAIN OF CUSTODY

06/07/23

UW1

Page # 1 of 1

Report To Chris Kramer

Company SLR

Address 1800 Blankenship Rd Ste 440

City, State, ZIP West Linn, OR, 97068

Phone (503) 723-4423 Email CKramer@slrconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: Christ Episcopal

PO #: 101.02212.00007

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	TCE | PCE 8260D				Notes
MW-21-0623	01A-C	6/6/23	959	water	3								X				

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Emily Hernandez	SLR	6/7/23	1600
Received by:	VINT	F&B	6/7/23	16:00
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

June 15, 2023

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

Dear Mr Kramer:

Included are the results from the testing of material submitted on June 7, 2023 from the Christ Episcopal 101.02216.00007, F&BI 306126 project. There are 6 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SLR0615R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 7, 2023 by Friedman & Bruya, Inc. from the SLR International Corp. Christ Episcopal 101.02216.00007, F&BI 306126 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
306126 -01	IA-1-0623
306126 -02	AA-1-0623

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-1-0623	Client:	SLR International Corp.
Date Received:	06/07/23	Project:	Christ Episcopal 101.02216.00007
Date Collected:	06/06/23	Lab ID:	306126-01
Date Analyzed:	06/08/23	Data File:	060820.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.42	0.10
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.11	<0.02
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA-1-0623	Client:	SLR International Corp.
Date Received:	06/07/23	Project:	Christ Episcopal 101.02216.00007
Date Collected:	06/06/23	Lab ID:	306126-02
Date Analyzed:	06/08/23	Data File:	060819.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	101	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.085	0.021
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	0.83	0.15
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Christ Episcopal 101.02216.00007
Date Collected:	Not Applicable	Lab ID:	03-1287 mb
Date Analyzed:	06/08/23	Data File:	060811.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.11	<0.02
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Date of Report: 06/15/23
Date Received: 06/07/23
Project: Christ Episcopal 101.02216.00007, F&BI 306126

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 306118-05 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Vinyl chloride	ug/m3	<0.26	<0.26	nm
Chloroethane	ug/m3	<2.6	<2.6	nm
1,1-Dichloroethene	ug/m3	<0.4	<0.4	nm
trans-1,2-Dichloroethene	ug/m3	<0.4	<0.4	nm
1,1-Dichloroethane	ug/m3	<0.4	<0.4	nm
cis-1,2-Dichloroethene	ug/m3	<0.4	<0.4	nm
1,2-Dichloroethane (EDC)	ug/m3	0.13	0.13	0
1,1,1-Trichloroethane	ug/m3	<0.55	<0.55	nm
Trichloroethene	ug/m3	<0.11	<0.11	nm
1,1,2-Trichloroethane	ug/m3	<0.055	<0.055	nm
Tetrachloroethene	ug/m3	<6.8	<6.8	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ug/m3	35	101	70-130
Chloroethane	ug/m3	36	101	70-130
1,1-Dichloroethene	ug/m3	54	109	70-130
trans-1,2-Dichloroethene	ug/m3	54	105	70-130
1,1-Dichloroethane	ug/m3	55	107	70-130
cis-1,2-Dichloroethene	ug/m3	54	102	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	110	70-130
1,1,1-Trichloroethane	ug/m3	74	113	70-130
Trichloroethene	ug/m3	73	107	70-130
1,1,2-Trichloroethane	ug/m3	74	113	70-130
Tetrachloroethene	ug/m3	92	108	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

306126

SAMPLE CHAIN OF CUSTODY

06/07/23

Page # 1 of 1

Report To Chris Kramer

Company SLR

Address 1800 Blankenship Road Ste 440

City, State, ZIP West Linn, OR, 97068

Phone (503) 723-4423 Email Ckramer@slrconsulting.com

SAMPLERS (*signature*)

PROJECT NAME & ADDRESS: Christ Episcopal

PO#: 101.022112.00007

NOTES:

INVOICE TO

TURNAROUND TIME
✓ Standard
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Default: Clean following final report delivery
Hold (Fee may apply):

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
IA-1-0623	01	35359		IA / SG	6/6/23	30	1012	10	1709			X				
AA-1-0623	02	20556		IA / SG	6/6/23	30	1025	10	1720			X				
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Emily Hernandez	SLR	6/7/23	1600
Received by:	VLNH	FBI	6-7-23	16 [illegible]
Relinquished by:				
Received by:		Samples received at 24 °C		

FORMS\COC\COCT0-15.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

July 14, 2023

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

Dear Mr Kramer:

Included are the results from the testing of material submitted on July 7, 2023 from the Christ Episcopal 101-02216-00007, F&BI 307041 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SLR0714R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on July 7, 2023 by Friedman & Bruya, Inc. from the SLR International Corp. Christ Episcopal 101-02216-00007, F&BI 307041 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
307041 -01	MW-21-0732
307041 -02	Trip Blank

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-21-0732	Client:	SLR International Corp.
Date Received:	07/07/23	Project:	101-02216-00007, F&BI 307041
Date Extracted:	07/10/23	Lab ID:	307041-01 1/10
Date Analyzed:	07/11/23	Data File:	071112.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	78	126
Toluene-d8	102	84	115
4-Bromofluorobenzene	102	72	130

Compounds:	Concentration ug/L (ppb)
Trichloroethene	650
Tetrachloroethene	6.7 j

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	101-02216-00007, F&BI 307041
Date Extracted:	07/10/23	Lab ID:	03-1543 mb
Date Analyzed:	07/10/23	Data File:	071007.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	71	132
Toluene-d8	103	68	139
4-Bromofluorobenzene	100	62	136

Compounds:	Concentration ug/L (ppb)
Trichloroethene	<0.5
Tetrachloroethene	<0.5 j

Date of Report: 07/14/23
Date Received: 07/07/23
Project: Christ Episcopal 101-02216-00007, F&BI 307041

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 307058-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Trichloroethene	ug/L (ppb)	10	<0.5	102	43-133
Tetrachloroethene	ug/L (ppb)	10	<1	96	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Trichloroethene	ug/L (ppb)	10	100	91	70-130	9
Tetrachloroethene	ug/L (ppb)	10	97	96	70-130	1

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

307041

SAMPLE CHAIN OF CUSTODY

07/07/23 VW1

Page # 1 of 1

Report To Chris Kramer

Company SLR

Address 1800 Blankenship Rd. ste 440

City, State, ZIP West Linn, OR, 97068

Phone (503) 723-4423 Email Ckramer@slrconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: Christ Episcopal

PO #: 101.02216.00007

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	TCE and PCE EPA 8260D				Notes
MW-21-0723	01 A-B	7/6/23	1038	water	3								X				
Trip blank	02 ↓			water	2												Added at lab (AP)
							Samples received at Ø °C										

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Emily Hernandez	SLR	7/7/23	930
Received by:	NHUT TRUONG	F&BI	7/7/23	9:30
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
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Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

July 17, 2023

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

Dear Mr Kramer:

Included are the results from the testing of material submitted on July 7, 2023 from the Christ Episcopal 101.02216.00007, F&BI 307042 project. There are 7 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SLR0717R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on July 7, 2023 by Friedman & Bruya, Inc. from the SLR International Corp. Christ Episcopal 101.02216.00007, F&BI 307042 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
307042 -01	IA-1-0723
307042 -02	AA-1-0723

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-1-0723	Client:	SLR International Corp.
Date Received:	07/07/23	Project:	101.02216.00007, F&BI 307042
Date Collected:	07/06/23	Lab ID:	307042-01
Date Analyzed:	07/10/23	Data File:	071014.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	99	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	1.2	0.30
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	0.47	0.087
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA-1-0723	Client:	SLR International Corp.
Date Received:	07/07/23	Project:	101.02216.00007, F&BI 307042
Date Collected:	07/06/23	Lab ID:	307042-02
Date Analyzed:	07/10/23	Data File:	071013.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	102	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.68	0.17
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	1.1	0.21
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	101.02216.00007, F&BI 307042
Date Collected:	07/10/23	Lab ID:	03-1544 MB
Date Analyzed:	07/10/23	Data File:	071012.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.11	<0.02
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Date of Report: 07/17/23
Date Received: 07/07/23
Project: Christ Episcopal 101.02216.00007, F&BI 307042

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 307061-01 1/5.0 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Vinyl chloride	ug/m3	<1.3	<1.3	nm
Chloroethane	ug/m3	<13	<13	nm
1,1-Dichloroethene	ug/m3	<2	<2	nm
trans-1,2-Dichloroethene	ug/m3	<2	<2	nm
1,1-Dichloroethane	ug/m3	<2	<2	nm
cis-1,2-Dichloroethene	ug/m3	<2	<2	nm
1,2-Dichloroethane (EDC)	ug/m3	<0.2	<0.2	nm
1,1,1-Trichloroethane	ug/m3	<2.7	<2.7	nm
Trichloroethene	ug/m3	<0.54	<0.54	nm
1,1,2-Trichloroethane	ug/m3	<0.27	<0.27	nm
Tetrachloroethene	ug/m3	<34	<34	nm

Date of Report: 07/17/23
Date Received: 07/07/23
Project: Christ Episcopal 101.02216.00007, F&BI 307042

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ug/m3	35	101	70-130
Chloroethane	ug/m3	36	101	70-130
1,1-Dichloroethene	ug/m3	54	99	70-130
trans-1,2-Dichloroethene	ug/m3	54	98	70-130
1,1-Dichloroethane	ug/m3	55	102	70-130
cis-1,2-Dichloroethene	ug/m3	54	97	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	105	70-130
1,1,1-Trichloroethane	ug/m3	74	103	70-130
Trichloroethene	ug/m3	73	103	70-130
1,1,2-Trichloroethane	ug/m3	74	117	70-130
Tetrachloroethene	ug/m3	92	114	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

307042

ME 07-07-23

Page # 1 of 1

Report To Chris Kramer

Company SLR

Address 1800 Blankenship Rd ste 440

City, State, ZIP West Linn OR 97068

Phone (503) 723-4473 Email Ckramer@slrconsulting.com

SAMPLERS (*signature*)	
PROJECT NAME & ADDRESS	PO #
Christ Episcopal	101.02216.00007
NOTES:	INVOICE TO

TURNAROUND TIME
Standard
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Default: Clean following final report delivery
Hold (Fee may apply):

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
IA-1-0723	01	23227	7848	IA / SG	7/6/23	30	948	~~8~~ 28	1730			X				
AA-1-0723	02	37089	5347	IA / SG	7/6/23	30	957	11	1735			X				
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG					Samples received at 21 °C							
				IA / SG												
				IA / SG												

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Emily Hernandez	SLR	7/7/23	930
Received by:		MHUT TRUONG	F&BI	7/7/23	9:30
Relinquished by:					
Received by:					

FORMS\COC\COCTO-15.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

August 16, 2023

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

Dear Mr Kramer:

Included are the results from the testing of material submitted on August 9, 2023 from the Christ Episcopal 101.02216.00007, F&BI 308171 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SLR0816R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 9, 2023 by Friedman & Bruya, Inc. from the SLR International Corp. Christ Episcopal 101.02216.00007, F&BI 308171 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
308171 -01	MW-21-0823

The 8260D tetracloroethene concentration were quantified below the standard reporting limit due to sample dilution. The data were qualified accordingly.

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-21-0823	Client:	SLR International Corp.
Date Received:	08/09/23	Project:	Christ Episcopal 101.02216.00007
Date Extracted:	08/11/23	Lab ID:	308171-01 1/10
Date Analyzed:	08/11/23	Data File:	081142.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	78	126
Toluene-d8	95	84	115
4-Bromofluorobenzene	99	72	130

Compounds:	Concentration ug/L (ppb)
Trichloroethene	650
Tetrachloroethene	7.6 j

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Christ Episcopal 101.02216.00007
Date Extracted:	08/11/23	Lab ID:	03-1819 mb
Date Analyzed:	08/11/23	Data File:	081107.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	71	132
Toluene-d8	92	68	139
4-Bromofluorobenzene	96	62	136

Compounds:	Concentration ug/L (ppb)
Trichloroethene	<0.5
Tetrachloroethene	<0.5 j

Date of Report: 08/16/23
Date Received: 08/09/23
Project: Christ Episcopal 101.02216.00007, F&BI 308171

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 308175-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Trichloroethene	ug/L (ppb)	10	<0.5	103	107	43-133	4
Tetrachloroethene	ug/L (ppb)	10	29	95 b	101 b	50-150	6 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Trichloroethene	ug/L (ppb)	10	108	105	70-130	3
Tetrachloroethene	ug/L (ppb)	10	114	110	70-130	4

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY 08/09/23 VW1

308171

Report To Chris Kramer

Company SLR

Address 1800 Blankenship Rd. Ste 440

City, State, ZIP West Linn, OR, 97068

Phone (503) 723-4423 Email ckramer@slrconsulting.com

SAMPLERS (*signature*)

PROJECT NAME	PO #
Christ Episcopal	101.022116.00007
REMARKS	INVOICE TO
Project specific RLs? - Yes / No	

Page # 1 of 1

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	TCE + PCE EPA 8260D				Notes
MW-21-0823	01A-B	8/8/23	1001	water	3								X				
	(1P) B																

Samples received at 0 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Emily Hernandez	SLR	8/9/23	900
Received by:	VINH	FBI	8-9-23	1221
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

August 17, 2023

Chris Kramer, Project Manager
SLR International Corp.
1800 Blankenship Rd, STE 440
West Linn, OR 97068

Dear Mr Kramer:

Included are the results from the testing of material submitted on August 9, 2023 from the Christ Episcopal 101.02216.00007, F&BI 308172 project. There are 6 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SLR0817R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 9, 2023 by Friedman & Bruya, Inc. from the SLR International Corp. Christ Episcopal 101.02216.00007, F&BI 308172 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
308172 -01	IA-1-0823
308172 -02	AA-1-0823

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-1-0823	Client:	SLR International Corp.
Date Received:	08/09/23	Project:	Christ Episcopal 101.02216.00007
Date Collected:	08/08/23	Lab ID:	308172-01 1/1.1
Date Analyzed:	08/14/23	Data File:	081416.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26 j	<0.1 j
Chloroethane	<2.9	<1.1
1,1-Dichloroethene	<0.44	<0.11
trans-1,2-Dichloroethene	<0.44	<0.11
1,1-Dichloroethane	<0.45	<0.11
cis-1,2-Dichloroethene	<0.44	<0.11
1,2-Dichloroethane (EDC)	0.96	0.24
1,1,1-Trichloroethane	<0.6	<0.11
Trichloroethene	0.82	0.15
1,1,2-Trichloroethane	<0.06	<0.011
Tetrachloroethene	<7.5	<1.1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA-1-0823	Client:	SLR International Corp.
Date Received:	08/09/23	Project:	Christ Episcopal 101.02216.00007
Date Collected:	08/08/23	Lab ID:	308172-02 1/1.1
Date Analyzed:	08/14/23	Data File:	081415.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	96	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26 j	<0.1 j
Chloroethane	<2.9	<1.1
1,1-Dichloroethene	<0.44	<0.11
trans-1,2-Dichloroethene	<0.44	<0.11
1,1-Dichloroethane	<0.45	<0.11
cis-1,2-Dichloroethene	<0.44	<0.11
1,2-Dichloroethane (EDC)	0.18	0.045
1,1,1-Trichloroethane	<0.6	<0.11
Trichloroethene	1.2	0.23
1,1,2-Trichloroethane	0.084	0.015
Tetrachloroethene	<7.5	<1.1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Christ Episcopal 101.02216.00007
Date Collected:	Not Applicable	Lab ID:	03-1821 MB
Date Analyzed:	08/14/23	Data File:	081414.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.23 j	<0.09 j
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.11	<0.02
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Date of Report: 08/17/23
Date Received: 08/09/23
Project: Christ Episcopal 101.02216.00007, F&BI 308172

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 308212-01 1/8.4 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Vinyl chloride	ug/m3	<2.1	<2.1	nm
Chloroethane	ug/m3	<22	<22	nm
1,1-Dichloroethene	ug/m3	<3.3	<3.3	nm
trans-1,2-Dichloroethene	ug/m3	<3.3	<3.3	nm
1,1-Dichloroethane	ug/m3	<3.4	<3.4	nm
cis-1,2-Dichloroethene	ug/m3	<3.3	<3.3	nm
1,2-Dichloroethane (EDC)	ug/m3	1.5	1.9	24
1,1,1-Trichloroethane	ug/m3	<4.6	<4.6	nm
Trichloroethene	ug/m3	<0.9	<0.9	nm
1,1,2-Trichloroethane	ug/m3	<0.46	9.3	nm
Tetrachloroethene	ug/m3	<57	<57	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ug/m3	35	111	70-130
Chloroethane	ug/m3	36	111	70-130
1,1-Dichloroethene	ug/m3	54	108	70-130
trans-1,2-Dichloroethene	ug/m3	54	106	70-130
1,1-Dichloroethane	ug/m3	55	112	70-130
cis-1,2-Dichloroethene	ug/m3	54	101	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	112	70-130
1,1,1-Trichloroethane	ug/m3	74	115	70-130
Trichloroethene	ug/m3	73	112	70-130
1,1,2-Trichloroethane	ug/m3	74	126	70-130
Tetrachloroethene	ug/m3	92	123	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

308172

SAMPLE CHAIN OF CUSTODY 08/09/23

Page # 1 of 1

Report To Chris Kramer

Company SLR

Address 1800 Blankenship Rd Ste 440

City, State, ZIP West Linn, OR, 97068

Phone (503) 723-4423 Email Ckramer@slrconsulting.com

SAMPLERS (signature)	
PROJECT NAME & ADDRESS: Christ Episcopal	PO #: 101.02216.00007
NOTES:	INVOICE TO

TURNAROUND TIME
✓ Standard
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Default: Clean following final report delivery
Hold (Fee may apply):

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
IA-1-0823	01	40705		IA / SG	8/8/23	29	915	7	1711			X				
AA-1-0823	02	35332		IA / SG	8/8/23	27	924	4	1716			X				
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG							Samples received at 21 °C					
				IA / SG												
				IA / SG												

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Emily Hernandez	SLR	8/9/23	900
Received by:	VINH	FBI	8-9-23	1227
Relinquished by:				
Received by:				

FORMS\COC\COCTO-15.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

September 18, 2023

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

Dear Mr Kramer:

Included are the results from the testing of material submitted on September 7, 2023 from the Christ Episcopal 101.02216.00007, F&BI 309079 project. There are 6 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SLR0918R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 7, 2023 by Friedman & Bruya, Inc. from the SLR International Corp. Christ Episcopal 101.02216.00007, F&BI 309079 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
309079 -01	IA-1-0923
309079 -02	AA-1-0923

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-1-0923	Client:	SLR International Corp.
Date Received:	09/07/23	Project:	Christ Episcopal 101.02216.00007
Date Collected:	09/07/23	Lab ID:	309079-01
Date Analyzed:	09/12/23	Data File:	091122.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	102	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.71	0.18
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	0.41	0.077
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA-1-0923	Client:	SLR International Corp.
Date Received:	09/07/23	Project:	Christ Episcopal 101.02216.00007
Date Collected:	09/07/23	Lab ID:	309079-02 1/1.7
Date Analyzed:	09/11/23	Data File:	091121.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	99	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26 j	<0.1 j
Chloroethane	<4.5	<1.7
1,1-Dichloroethene	<0.67	<0.17
trans-1,2-Dichloroethene	<0.67	<0.17
1,1-Dichloroethane	<0.69	<0.17
cis-1,2-Dichloroethene	<0.67	<0.17
1,2-Dichloroethane (EDC)	0.089	0.022
1,1,1-Trichloroethane	<0.93	<0.17
Trichloroethene	0.67	0.12
1,1,2-Trichloroethane	<0.093	<0.017
Tetrachloroethene	<6.8 j	<1 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Christ Episcopal 101.02216.00007
Date Collected:	Not Applicable	Lab ID:	03-2105 MB
Date Analyzed:	09/11/23	Data File:	091114.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.16 j	<0.058 j
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.11	<0.02
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<3.9 j	<0.58 j

Date of Report: 09/18/23
Date Received: 09/07/23
Project: Christ Episcopal 101.02216.00007, F&BI 309079

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 309093-05 1/4.8 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Vinyl chloride	ug/m3	<1.2	<1.2	nm
Chloroethane	ug/m3	<13	<13	nm
1,1-Dichloroethene	ug/m3	<1.9	<1.9	nm
trans-1,2-Dichloroethene	ug/m3	<1.9	<1.9	nm
1,1-Dichloroethane	ug/m3	<1.9	<1.9	nm
cis-1,2-Dichloroethene	ug/m3	<1.9	<1.9	nm
1,2-Dichloroethane (EDC)	ug/m3	<0.19	<0.19	nm
1,1,1-Trichloroethane	ug/m3	<2.6	<2.6	nm
Trichloroethene	ug/m3	<0.52	<0.52	nm
1,1,2-Trichloroethane	ug/m3	<0.26	<0.26	nm
Tetrachloroethene	ug/m3	<33	<33	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ug/m3	35	116	70-130
Chloroethane	ug/m3	36	119	70-130
1,1-Dichloroethene	ug/m3	54	114	70-130
trans-1,2-Dichloroethene	ug/m3	54	112	70-130
1,1-Dichloroethane	ug/m3	55	116	70-130
cis-1,2-Dichloroethene	ug/m3	54	109	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	118	70-130
1,1,1-Trichloroethane	ug/m3	74	119	70-130
Trichloroethene	ug/m3	73	114	70-130
1,1,2-Trichloroethane	ug/m3	74	123	70-130
Tetrachloroethene	ug/m3	92	121	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

309079

SAMPLE CHAIN OF CUSTODY

09/07/23

Report To Chris Kramer
Company SLR
Address 1800 Blankenship Rd Ste 440
City, State, ZIP West Linn, OR, 97068
Phone (503) 723-4423 Email CKramer@slrconsulting.com

SAMPLERS (signature)

PROJECT NAME & ADDRESS: Christ Episcopal

PO # 101.02216.00007

NOTES:

INVOICE TO: Chris Kramer

TURNAROUND TIME
✓ Standard
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Default: Clean following final report delivery
Hold (Fee may apply):

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
IA-1-0923	01	40707		IA / SG	9/7/23	30	954	8	1730			X				
AA-1-0923	02	40712		IA / SG	9/7/23	28	959	17	1732			X				
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Emily Hernandez	SLR	9/7/23	1800
Received by:	BISRAT TADESSE	FBI	9/7/23	1800
Relinquished by:				
Received by:				

Samples received at 21 °C

FORMS\COC\COCTO-15.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

September 13, 2023

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

Dear Mr Kramer:

Included are the results from the testing of material submitted on September 7, 2023 from the Christ Episcopal 101.02216.00007, F&BI 309080 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SLR0913R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 7, 2023 by Friedman & Bruya, Inc. from the SLR International Corp. Christ Episcopal 101.02216.00007, F&BI 309080 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
309080 -01	MW-21-0923

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-21-0923	Client:	SLR International Corp.
Date Received:	09/07/23	Project:	Christ Episcopal 101.02216.00007
Date Extracted:	09/08/23	Lab ID:	309080-01 1/10
Date Analyzed:	09/09/23	Data File:	090855.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	94	78	126
Toluene-d8	99	84	115
4-Bromofluorobenzene	102	72	130

Compounds:	Concentration ug/L (ppb)
Trichloroethene	690
Tetrachloroethene	7.7 j

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Christ Episcopal 101.02216.00007
Date Extracted:	09/08/23	Lab ID:	03-2101 mb
Date Analyzed:	09/08/23	Data File:	090808.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	78	126
Toluene-d8	98	84	115
4-Bromofluorobenzene	100	72	130

Compounds:	Concentration ug/L (ppb)
Trichloroethene	<0.5
Tetrachloroethene	<0.5 j

Date of Report: 09/13/23
Date Received: 09/07/23
Project: Christ Episcopal 101.02216.00007, F&BI 309080

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 309055-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Trichloroethene	ug/L (ppb)	10	<0.5	104	35-149
Tetrachloroethene	ug/L (ppb)	10	<1	106	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Trichloroethene	ug/L (ppb)	10	106	104	70-130	2
Tetrachloroethene	ug/L (ppb)	10	113	109	70-130	4

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

309080

SAMPLE CHAIN OF CUSTODY 09-07-23 VW1

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Report To Chris Kramer

Company SLR

Address 1800 Blankenship Rd Ste 440

City, State, ZIP West Linn, OR, 97068

Phone (503) 723-4423 Email ckramer@slrconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: Christ Episcopal

PO#: 101.02216.00007

REMARKS: Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	TCE + PCE EPA 8260D				Notes
MW-21-0923	01A-C	9/7/23	1042	water	3								X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Emily Hernandez	SLR	9/7/23	1800
Received by:	BISRAT TADESSE	FSI	9/7/23	1800
Relinquished by:				
Received by:				

Samples ~~received at~~ 2 °C

Friedman & Bruya, Inc.
Ph. (206) 285-8282