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Issaquah, WA 98027

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TRCcompanies.com

September 1, 2022

Ms. Jing Song, L.G., L.H.G.  
Washington State Department of Ecology  
15700 Dayton Avenue North  
Shoreline, Washington 98133

Re: Indoor Air Monitoring Report – August 2022  
Modera River Trail  
15881 NE 85<sup>th</sup> Street  
Redmond, Washington

Facility/Site ID: 75292  
Cleanup Site ID: 15281  
VCP Project ID: NW3292

TRC Project Number: 015353.8

Dear Ms. Song:

TRC Environmental Corporation (TRC) is pleased to present this *Indoor Air Monitoring Report – August 2022* (Report) for the Modera River Trail Site located at 15881 NE 85th Street in Redmond, Washington (Site). Following the completion of the property redevelopment, the address of the Modera River Trail Site was changed. The former Site address included 15801 and 15945 NE 85th Street, Redmond WA. The current Site address is now 15881 NE 85th Street Redmond, Washington. The location of the Site is depicted on Figure 1. TRC is submitting this Report on behalf of MCRT West Coast, LLC (MCRT). The Site is currently owned by NE 85<sup>th</sup> Street Development, LLC.

On June 10, 2021, TRC submitted a Work Plan via email to the Washington State Department of Ecology (Ecology). The purpose of the Work Plan was to present an approach for groundwater and indoor air monitoring at the Site. This Work Plan was prepared in response to Ecology's email correspondence on April 28, 2021. Ecology approved the Work Plan via email on June 11, 2021.

Initial indoor air sampling events were conducted on February 19, 2022 and March 23, 2022. The results from these events are described in an *Indoor Air Monitoring Report*, dated June 1, 2022. The purpose of those sampling events was to document indoor air conditions during the heating season.

Groundwater monitoring is not discussed in this Report but is described in a separate *2022 Annual Groundwater Monitoring Report*, dated August 17, 2022.

Since the June *Indoor Air Monitoring Report*, TRC performed an additional indoor air monitoring event on August 3, 2022, following the procedures included in the June 1, 2021 Work Plan. This Report describes the methods and results of that indoor air sampling event.

## AUGUST 2022 AIR SAMPLING

TRC mobilized to the Site on August 3, 2022, to perform indoor air sampling. The purpose of this sampling event was to evaluate indoor air conditions during the cooling season.

Two indoor air samples (IA-1 and IA-2) and one background ambient air sample (AA-1) were collected. Sample locations are depicted on Figure 2.

Sample locations are the same as those utilized during prior indoor air sampling events. Sample IA-1 was collected inside the planned retail portion of the facility. Sample IA-2 was collected inside a residential unit of the facility on the ground floor (Unit 107). Background sample AA-1 was collected outdoors, west-adjacent to the facility.

All samples were collected using 6-liter SUMMA canisters fixed with a 24-hour inlet regulator provided by the laboratory, Friedman and Bruya, Inc. (F&BI). Intake tubing was set at approximately 5 feet above ground surface. Samples were retrieved from the Site on the following day, August 4, 2022. The 24-hour sampling period was representative of typical residential exposure within the facility.

Samples were submitted to F&BI for naphthalene analysis using U.S. Environmental Protection Agency (EPA) Method TO-15 under standard chain-of-custody protocols.

A summary of analytical results is included in Table 1. Laboratory analytical reports are included in Attachment A. For comparative purposes, prior indoor air data collected in February and March 2022 are also included in Table 1.

Naphthalene was detected in one sample (IA-1) at a concentration of 0.069  $\mu\text{g}/\text{m}^3$ . The detected concentration of naphthalene is less than the Model Toxics Control Act (MTCA) Method B carcinogenic indoor air cleanup level (CUL) of 0.074  $\mu\text{g}/\text{m}^3$ .

Using the same methodology as prior events, the naphthalene concentration in IA-1 was adjusted using half of the detection limit of the ambient air sample. The resulting concentration is 0.0435  $\mu\text{g}/\text{m}^3$ . Table 1 presents this adjusted concentration for purposes of comparison.

## CONCLUSIONS

The following conclusions are supported by the analytical results for the indoor air sampling event documented herein:

- The August sampling event demonstrates compliance with the naphthalene CUL during the cooling season.

- Based on analytical results and prior correspondence with Ecology, it is TRC's opinion that indoor air sampling is no longer necessary or warranted at the Site at this time.

## CLOSING

Please contact us at the email addresses below or at (425) 395-0010 if you have any questions or comments regarding the findings and conclusions of this Report.

Sincerely,



*Prepared by:*  
Ramsey Mauldin  
Senior Environmental Scientist  
[rmauldin@trccompanies.com](mailto:rmauldin@trccompanies.com)



ERIC MICHAEL KOLTES

*Reviewed and approved by:*  
Eric Koltes, L.G.  
Principal Geologist  
[ekoltes@trccompanies.com](mailto:ekoltes@trccompanies.com)

## ENCLOSURES

### Tables

Table 1 Indoor Air Monitoring Analytical Results

### Figures

Figure 1 General Vicinity Map  
Figure 2 Site Representation

### Attachments

Attachment A Laboratory Analytical Results

**Table**

**Table 1**  
**Summary of Indoor Air Analytical Results**  
**Indoor Air Monitoring Report - August 2022**  
**Modera River Trail Property**  
**15881 Northeast 85th Street, Redmond, Washington**

Event	Sample Type	Sample ID	Sample Date	Naphthalene <sup>a</sup>
February 19, 2022	Ambient Air	AA-1	2/19/2022	<0.057 j
	Indoor Air	IA-1	2/19/2022	0.13
		IA-1 (adjusted) <sup>b</sup>		0.1015
		IA-2	2/19/2022	0.15
		IA-2 (adjusted) <sup>b</sup>		0.1215
March 23, 2022	Ambient Air	AA-1	3/23/2022	<0.057 j
	Indoor Air	IA-1	3/23/2022	0.094 j
		IA-1 (adjusted) <sup>b</sup>		0.0655
		IA-2	3/23/2022	0.094 j
		IA-2 (adjusted) <sup>b</sup>		0.0655
August 4, 2022	Ambient Air	AA-1	8/3/2022	<0.051 j
	Indoor Air	IA-1	8/3/2022	0.069 j
		IA-1 (adjusted) <sup>b</sup>		0.0435
		IA-2	8/3/2022	<0.051 j
		IA-2 (adjusted) <sup>b</sup>		<0.051 j
Indoor Air Cleanup Level <sup>c</sup>				0.074

Notes:

All results presented in micrograms per cubic meter (µg/m<sup>3</sup>).

Half the reporting limit was used to calculate adjusted values when background samples were less than the detection limit.

**Bold** Bold results exceed the laboratory reporting limit.

**Shaded** Shaded results exceed the cleanup level.

< Result is less than the laboratory method detection limit.

<sup>a</sup> Analyzed by EPA Method TO-15.

<sup>b</sup> Adjusted indoor air value calculated by subtracting background from indoor air results.

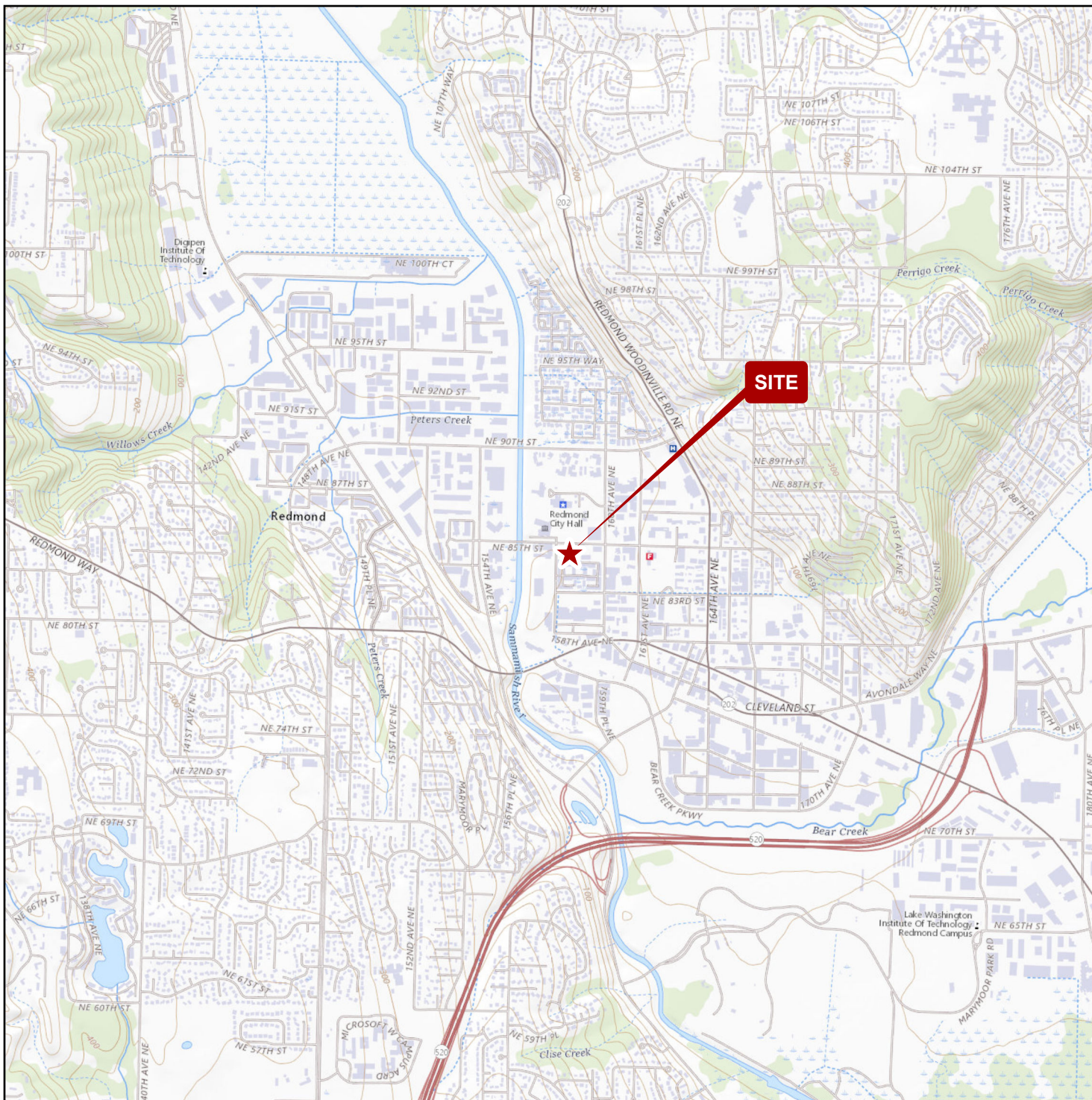
<sup>c</sup> Model Toxics Control Act (MTCA) Method B Indoor Air Cleanup Level from Cleanup Levels and Risk Calculations (CLARC) database. Where levels based on carcinogenic and non-carcinogenic, the lower value is listed.

Qualifier:

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

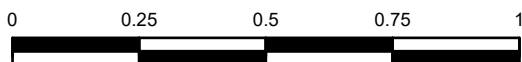
## Figures





SITE  
KING COUNTY

SOURCE: USGS, THE NATIONAL MAP



APPROXIMATE SCALE IN MILES



1180 NW MAPLE ST, SUITE 310  
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## FIGURE 1 GENERAL VICINITY MAP

**REPORT**  
INDOOR AIR MONITORING REPORT  
AUGUST 2022

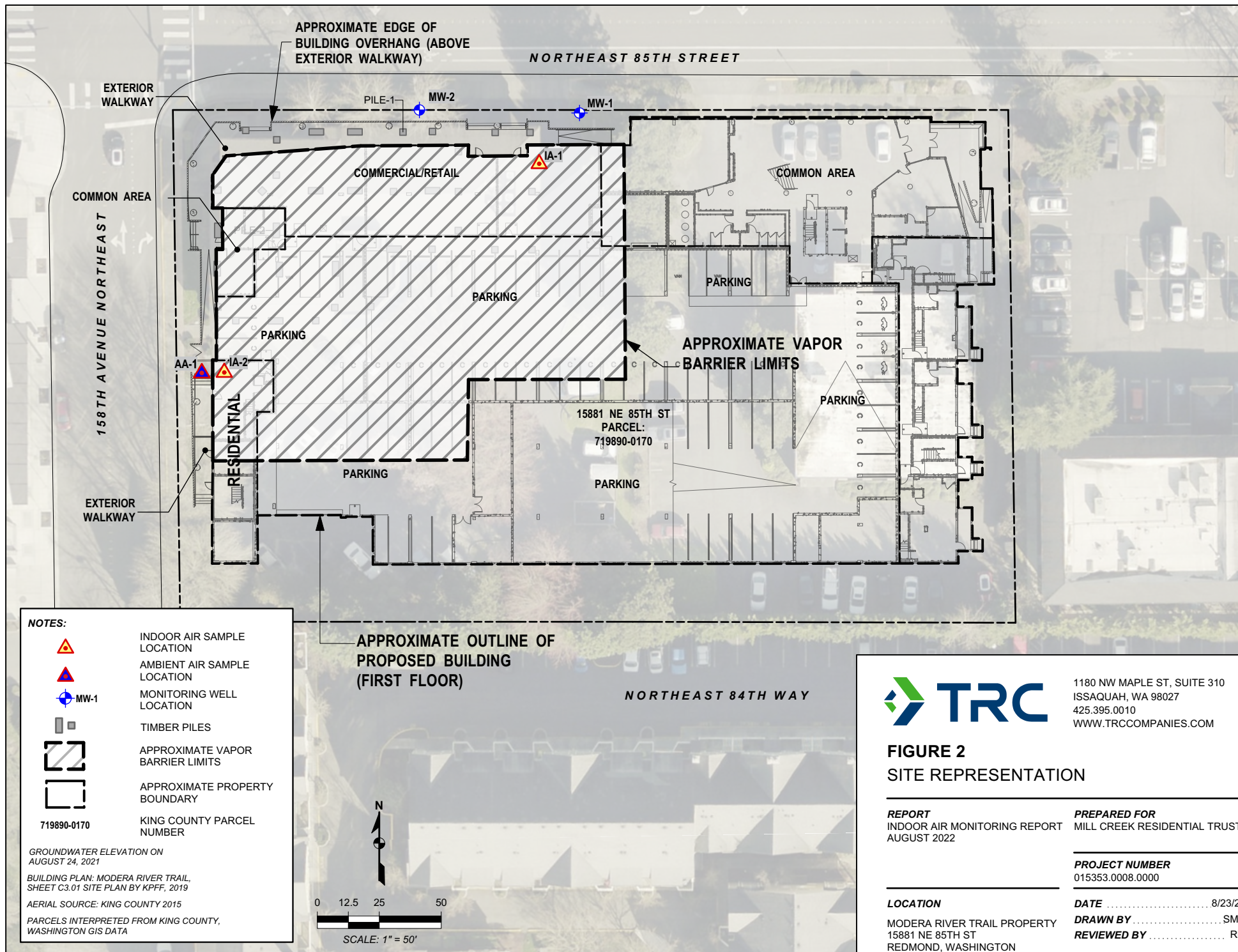
**PREPARED FOR**  
MILL CREEK RESIDENTIAL TRUST

**PROJECT NUMBER**  
015353.0008.0000

**LOCATION**  
MODERA RIVER TRAIL PROPERTY  
15881 NE 85TH ST  
REDMOND, WASHINGTON

**DATE** ..... 8/23/22  
**DRAWN BY** ..... SMR  
**REVIEWED BY** ..... RM





1180 NW MAPLE ST, SUITE 310  
ISSAQUAH, WA 98027  
425.395.0010  
WWW.TRCCOMPANIES.COM

## FIGURE 2 SITE REPRESENTATION

**REPORT**  
INDOOR AIR MONITORING REPORT  
AUGUST 2022

**PREPARED FOR**  
MILL CREEK RESIDENTIAL TRUST

**PROJECT NUMBER**  
015353.0008.0000

**LOCATION**  
MODERA RIVER TRAIL PROPERTY  
15881 NE 85TH ST  
REDMOND, WASHINGTON

**DATE** ..... 8/23/22  
**DRAWN BY** ..... SMR  
**REVIEWED BY** ..... RM



**Attachment A**  
**Laboratory Analytical Results**

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.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

August 16, 2022

Ramsey Mauldin, Project Manager  
TRC Environmental  
1180 NW Maple St, Suite 310  
Issaquah, WA 98027

RE: MCRT Redmond 015353.8 184157, F&BI 208071

Dear Mr Mauldin:

Included are the results from the testing of material submitted on August 5, 2022 from the MCRT Redmond 015353.8 184157, F&BI 208071 project. There are 9 pages included in this report.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Cynthia Moon  
TRC0816R.DOC

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 5, 2022 by Friedman & Bruya, Inc. from the TRC Environmental MCRT Redmond 015353.8 184157, F&BI 208071 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>TRC Environmental</u>
208071-01	IA-1
208071-02	IA-2
208071-03	AA-1

All quality control requirements were acceptable.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-1	Client:	TRC Environmental
Date Received:	08/05/22	Project:	MCRT Redmond 015353.8 184157
Date Collected:	08/03/22	Lab ID:	208071-01 1/1.2
Date Analyzed:	08/11/22	Data File:	081119.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	83	70	130

	Concentration	
Compounds:	ug/m3	ppbv
Naphthalene	0.069 j	0.013 j



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-2	Client:	TRC Environmental
Date Received:	08/05/22	Project:	MCRT Redmond 015353.8 184157
Date Collected:	08/03/22	Lab ID:	208071-02 1/1.2
Date Analyzed:	08/11/22	Data File:	081120.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	79	70	130

	Concentration
Compounds:	ug/m3      ppbv

Naphthalene	<0.051 j	<0.0098 j
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# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA-1	Client:	TRC Environmental
Date Received:	08/05/22	Project:	MCRT Redmond 015353.8 184157
Date Collected:	08/03/22	Lab ID:	208071-03 1/1.2
Date Analyzed:	08/09/22	Data File:	080910.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	90	70	130

	Concentration
Compounds:	ug/m3      ppbv
Naphthalene	<0.051 j <0.0098 j

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	TRC Environmental
Date Received:	Not Applicable	Project:	MCRT Redmond 015353.8 184157
Date Collected:	Not Applicable	Lab ID:	02-1811 mb
Date Analyzed:	08/09/22	Data File:	080909.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

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

	Concentration
Compounds:	ug/m3      ppbv

Naphthalene	<0.043 j	<0.0082 j
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# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	TRC Environmental
Date Received:	Not Applicable	Project:	MCRT Redmond 015353.8 184157
Date Collected:	08/12/22	Lab ID:	02-1816 MB
Date Analyzed:	08/11/22	Data File:	081118.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	83	70	130

	Concentration
Compounds:	ug/m3      ppbv

Naphthalene	<0.043 j	<0.0082 j
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/16/22

Date Received: 08/05/22

Project: MCRT Redmond 015353.8 184157, F&BI 208071

**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
Naphthalene	ug/m <sup>3</sup>	71	105	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/16/22

Date Received: 08/05/22

Project: MCRT Redmond 015353.8 184157, F&BI 208071

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

Laboratory Code: 208091-01 1/5.4 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Naphthalene	ug/m3	<1.4	<1.4	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	ug/m3	71	91	70-130

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **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

8/5/22

Page # 1 of 1

208071 Ramsey Mauldin

Company TRL

Address 1180 NW Maple St Ste 310

City, State, ZIP 15504001, WA 98027

Phone 425-395-0010 Email rmauldin@trc.com pmauldin@trc.com

SAMPLERS (signature) <i>Ramsey Mauldin</i>	
PROJECT NAME & ADDRESS MCRRT Redmond 015353.8	PO # 1481157
NOTES: call Ramsey to 4:30 PM rush times for TO15	
INVOICE TO	

TURNAROUND TIME Standard PM 8/5 RUSH 5-DAY per RM 8/5/22
Rush charges authorized by: ME
SAMPLE DISPOSAL Default: Clean following final report delivery CHold (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	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium	Notes
IA-1	01	37215	07870	IA / SG	8-3-22	23.0	1622	5	1622					X	CamID# 37214
IA-2	02	23227	07848	IA / SG		29.5	1631	4.5	1631					X	
AA-1	03	35331	05349	IA / SG	1	29.5	1634	5.5	1634					X	sample labeled AA-3
				IA / SG											
				IA / SG											
				IA / SG											
				IA / SG											
				IA / SG											
				IA / SG											

## ANALYSIS REQUESTED

SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
Relinquished by: <i>Ramsey Mauldin</i>		Ramsey Mauldin		TRL		8-5-22	0827
Received by: <i>S. Johnson</i>		S. Johnson		TRB, Inc		8/5/22	08:27
Relinquished by:							
Received by:							
Samples received at 1700							

Friedman & Bruya, Inc.  
3012 16th Avenue West  
Seattle, WA 98119-2029  
Ph. (206) 285-8282  
Fax (206) 283-5044  
FORMS\COCC\COCTO-15.DOC