1180 NW Maple St., Suite 310
Issaquah, WA 98027

T 425.395.0010
TRCcompanies.com

November 4, 2022

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

Re: Cleanup Action Summary Report
Modera River Trail
15881 NE 85th Street
Redmond, Washington

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

TRC Project Number: 015353.0008

Dear Ms. Song:

TRC Environmental Corporation (TRC) is pleased to submit this *Cleanup Action Summary Report* (Report) for the Modera River Trail Site located at 15881 NE 85th Street in Redmond, Washington (Site). TRC is submitting this Report on behalf of MCRT West Coast, LLC (MCRT). The Site is currently owned by NE 85th Street Development, LLC.

TRC prepared a *Remedial Investigation, Feasibility Study, and Interim Remedial Action Report* on August 12, 2020 (RIFS-IRA). The RIFS-IRA documented previous investigations and remedial actions to address impacts in soil at the Site. The RIFS-IRA was submitted to the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP). Ecology accepted the Site into the VCP and assigned VCP Project ID NW3292. Ms. Jing Song is the Ecology Project Manager.

Following the submittal of the RIFS-IRA, Ecology issued a Further Action Opinion Letter, dated January 29, 2021 (Opinion Letter). Ecology's letter requested additional investigation activities, including groundwater and indoor air sampling to evaluate compliance with applicable cleanup levels (CULs). The purpose of this Report is to summarize report submittals and correspondence with Ecology that occurred since Ecology's Opinion Letter.

REPORT SUBMITTAL SUMMARY

This section summarizes the reports and communications submitted on behalf of MCRT to document remedial actions associated with the Site.

TRC submitted a Work Plan to Ecology via email on June 10, 2022. The Work Plan included specific actions to address groundwater monitoring and indoor air sampling to comply with Ecology's Opinion Letter. Ecology provided concurrence with this Work Plan on June 11, 2021. The Work Plan and Ecology's concurrence are included in Attachment A.

TRC prepared a *Well Installation and Monitoring Report*, dated October 11, 2021 on behalf of MCRT. A copy of this report is included in Attachment B. The report was delivered to Ecology via email on October 11, 2021. This report documented monitoring well installations and the findings of an initial groundwater sampling event. Contaminants of concern (COCs) were not detected during the initial sampling event. Based on the Opinion Letter, at least three additional quarters of groundwater monitoring were required to demonstrate compliance with CULs.

TRC prepared an *Indoor Air Monitoring Report*, dated June 1, 2022. The report was delivered to Ecology via email on June 7, 2022 and is included in Attachment C. This report documented two indoor air monitoring events conducted in February and March 2022. Indoor air analytical results from the March sampling event demonstrated compliance with CULs during the heating season.

TRC prepared a *2022 Annual Groundwater Monitoring Report*, dated August 17, 2022. The report was delivered to Ecology via email on August 19, 2022 and is included in Attachment D. This report documented the four quarterly groundwater monitoring events conducted following well installation. The documented analytical results demonstrated compliance with CULs for four consecutive quarters. Based on this finding, it was determined that no additional groundwater monitoring was required. Ecology agreed with this determination on August 22, 2022 via email. A copy of the Ecology communication is included in Attachment E.

TRC prepared an *Indoor Air Monitoring Report – August 2022*, dated September 1, 2022. The report was delivered to Ecology via email on September 2, 2022 and is included in Attachment F. This report documented an indoor air sampling event conducted in August 2022. Indoor air analytical results from the sampling event demonstrated compliance with CULs during the cooling season. Based on this finding, indoor air was determined in compliance during both the heating and cooling season. No additional indoor air sampling was required. Ecology agreed with this determination on September 6, 2022 via email. A copy of the Ecology communication is included in Attachment G.

ENVIRONMENTAL COVENANT

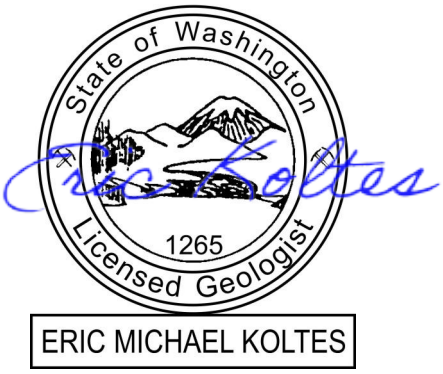
MCRT is currently preparing an Environmental Covenant in accordance with Washington Administrative Code (WAC) 173-340-440 and *Toxics Cleanup Program Procedure 440A: Establishing Covenants under the Model Toxics Control Act*, Publication No. 15-09-054. The Environmental Covenant will be submitted to Ecology for review and approval. Following approval, the Environmental Covenant will be filed with the King County Department of Assessments.

CLOSING

Based on the findings and conclusions of the previously mentioned reports and communications with Ecology, no additional remedial activities are required at the Site. It is MCRT's understanding that Ecology will issue a Restricted No Further Action Opinion Letter for the Site following the filing of the Environmental Covenant. Please provide your concurrence.

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

Sincerely,



Prepared by:
Ramsey S. Mauldin
Senior Environmental Scientist
rmauldin@trccompanies.com

Reviewed and approved by:
Eric Koltes, L.G.
Principal Geologist
ekoltes@trccompanies.com

ENCLOSURES

Attachments

Attachment A Email Work Plan, dated June 10, 2022
Attachment B *Well Installation and Monitoring Report*, dated October 11, 2021
Attachment C *Indoor Air Monitoring Report*, dated June 1, 2022
Attachment D *2022 Annual Groundwater Monitoring Report*, dated August 17, 2022
Attachment E Ecology Concurrence with Groundwater Compliance
Attachment F *Indoor Air Monitoring Report – August 2022*, dated September 1, 2022
Attachment G Ecology Concurrence with Indoor Air Compliance

Attachment A
Email Work Plan,
dated June 10, 2022

Mauldin, Ramsey

From: Song, Jing (ECY) <JISO461@ECY.WA.GOV>
Sent: Friday, June 11, 2021 8:35 AM
To: Koltes, Eric
Cc: Warfel, Michael (ECY); Bardy, Louise (ECY); Steve Yoon; Matt Quigley
Subject: RE: [EXTERNAL] NW3292 Modera River Trail Site

Eric – the work plan looks good. Thank you for putting together the work plan and scheduling the field work in a short time. It's great to see the site cleanup is moving forward!

We have moved to Shorline!
Physical Address: 15700 Dayton Ave N, Shoreline, WA 98133
Mailing Address: PO Box 330316, Shoreline, WA 98133-9716
Reception (24 hour) number: (206) 594-0000

Jing Song, LG, LHG
Voluntary Cleanup Program Site Manager
Toxics Cleanup Program – Northwest Regional Office
Washington Department of Ecology
Direct: (206) 594-0100
Cell: (425) 229-2565
Email: jing.song@ecy.wa.gov

From: Koltes, Eric <EKoltes@trccompanies.com>
Sent: Thursday, June 10, 2021 6:58 PM
To: Song, Jing (ECY) <JISO461@ECY.WA.GOV>
Cc: Warfel, Michael (ECY) <MWAR461@ECY.WA.GOV>; Bardy, Louise (ECY) <LBAR461@ECY.WA.GOV>; Steve Yoon <syoon@mcrtrust.com>; Matt Quigley <mquigley@mcrtrust.com>
Subject: RE: [EXTERNAL] NW3292 Modera River Trail Site

Jing,

Enclosed is the following Work Plan for the MCRT Modera River Trail Property located at 15801 and 15945 NE 85th Street in Redmond, Washington (Property) in response to Ecology's email correspondence on April 28, 2021. The attached Figure depicts two proposed groundwater monitoring well installation locations as well as two indoor air sample locations. The details of groundwater and indoor air monitoring are included below.

Groundwater Monitoring

TRC will install two monitoring wells along the northern Property boundary to perform quarterly groundwater monitoring using standard direct push technology (DPT) drilling techniques. One well will be placed as near to DPT-3 as possible. The second well will be installed roughly 80 feet to the east. The enclosed figure depicts each proposed monitoring well locations.

Groundwater is anticipated to be located at about 7 feet below grade (based on water depth at DPT 3). DPT borings are anticipated to be advanced to a depth of about 17 feet below grade.
Soil from each boring will be sampled on a continuous basis and field screened for signs of impacts. Based on field screening observations, at least two soil samples will be collected from each boring to provide additional soil characterization data. In the absence of field impacts, samples will be submitted from depths of 8 and 15 feet below grade. Samples will be analyzed for naphthalenes and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by U.S. Environmental Protection Agency (EPA) Method 8270D SIM.

At the conclusion of boring advancement, 2-inch monitoring wells will be installed. Wells will be constructed using 10 feet of 0.01-inch factory slotted screen with approximately 2 feet of screen above the encountered water table and 8 feet below. The remainder of the well will be constructed of blank PVC casing. The screen will be backfilled with 10/20 silica sand and sealed with hydrated bentonite chips. The surface will be completed with a flush-mount monument set in concrete.

Each well will be developed using surging and over-pumping techniques until nephelometric turbidity units (NTU) are below 5. All purge and development water will be stored on-site in 55-gallon drums pending proper characterization and off-site disposal.

After well installation and development, quarterly groundwater monitoring will be conducted at both wells by standard low-flow procedures, analyzing samples for naphthalenes and cPAHs by EPA Method 8270D SIM. Groundwater monitoring will continue until the data set demonstrates compliance with the appliable groundwater cleanup levels.

Indoor Air Monitoring

TRC will perform two rounds of indoor air sampling to confirm the effectiveness of the installed vapor barrier. One sampling event will be conducted in a heating season (summer) and one during a cooling season (winter). During both sampling events, sampling will consist of two indoor air samples from areas of the building that are designed for occupancy. An outdoor background sample will also be collected during each event to compare with observed indoor air concentrations.

The indoor air samples will be collected from approximately 5 feet above floor level which represents the standard breathing zone of potential occupants. The outdoor sample will be collected from an area upgradient from the prevailing wind relative to the subject property. These air samples will utilize 6-Liter Summa cannisters with a 24-hour inlet regulator, as appropriate for evaluating a residential exposure scenario. Each sample will be analyzed for naphthalene using EPA Method TO-15.

Closing

Well installation is currently scheduled for **July 20, 2021**. If you have any comments, please provide prior. If you have any questions about this plan of need further clarification, please let me know.

Regards,

Eric

Eric Koltes, L.G.
Senior Geologist

1180 NW Maple Street, Suite 310, Issaquah, WA 98027
T 425.395.0014 | **C** 425.922.5666 | EKoltes@trccompanies.com
LinkedIn | Twitter | Blog | TRCcompanies.com

From: Song, Jing (ECY) <JISO461@ECY.WA.GOV>
Sent: Wednesday, April 28, 2021 1:34 PM
To: Koltes, Eric <EKoltes@trccompanies.com>; Steve Yoon <syoon@mcrtrust.com>
Cc: Warfel, Michael (ECY) <MWAR461@ECY.WA.GOV>; Bardy, Louise (ECY) <LBAR461@ECY.WA.GOV>
Subject: [EXTERNAL] NW3292 Modera River Trail Site
Importance: High

Hi Eric and Steve,

It is nice to talk to you yesterday.

Ecology appreciates your timely review and response to the *Opinion Letter* dated January 29, 2021. Ecology concurs with the indoor air sampling work proposed in the *Response to Ecology Opinion dated January 29, 2021*, dated March 22, 2021.

Ecology has reviewed the Site data, and recommends the following work in addition to the indoor air sampling:

Install at least two groundwater monitoring wells along the northern Property boundary, between the Property and the Redmond Water Well No.4.

- One of the monitoring well should be installed as close to temporary well DPT-3 as possible.
- Based on the location of the Water Well No.4, the second monitoring well could be placed east of the first well.
- Sample soil during the well installation, which could provide additional soil characterization data.
- These monitoring wells should be sampled for cPAHs and naphthalenes quarterly.

The data provided by the groundwater sampling can help on determining the institutional controls when we negotiate the environmental covenant.

Ecology recommends submission of a work plan for the well installation and indoor air sampling prior to the field work, to ensure sufficient data will be collected and all parties are on the same page. Ecology will keep a dialog with City of Redmond for this site.

Thank you for talking with us. Looking forward to moving forward on this cleanup. Please let me know if you have any questions.

Jing Song, LG, LHG,

Voluntary Cleanup Program Site Manager
Toxics Cleanup Program – Northwest Regional Office
Washington Department of Ecology
~~Desk: (425) 649-7109~~
Cell: (425) 229-2565
Email: jing.song@ecy.wa.gov

We are moving!
Beginning May 17, 2021
Physical Address: 15700 Dayton Ave N, Shoreline, WA 98133
Mailing Address: PO Box 330316, Shoreline, WA 98133-9716
Reception (24 hour) number: (206) 594-0000
Direct: (206) 594-0100
Cell: (425) 229-2565

Attachment B
Well Installation and Monitoring Report, dated October 11, 2021

1180 NW Maple St., Suite 310
Issaquah, WA 98027
T 425.395.0010
TRCcompanies.com

October 11, 2021

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

Re: Well Installation and Monitoring Report
Modera River Trail
15801 and 15945 NE 85th 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 *Well Installation and Monitoring Report* (Report) on behalf of MCRT West Coast, LLC (MCRT) to present the findings of the recent groundwater monitoring well installation and initial sampling that occurred at the Modera River Trail Site located at 15801 and 15945 NE 85th Street in Redmond, Washington (Site). The location of the Site is depicted on Figure 1.

On June 10, 2021, TRC submitted an email Work Plan for groundwater and indoor air monitoring to the Washington State Department of Ecology (Ecology) in response to Ecology's email correspondence on April 28, 2021. You indicated your agreement with the details included in the Work Plan on behalf of Ecology via email on June 11, 2021. Since then, TRC has installed the monitoring wells and conducted the first quarterly groundwater monitoring event associated with that Work Plan. This Report documents the findings of the well installation and initial groundwater sampling, the schedule for continued groundwater monitoring, and the plan for future indoor air sampling.

MONITORING WELL INSTALLATION

On August 18, 2021, TRC directed the installation of two monitoring wells (MW-1 and MW-2) for the purpose of analyzing subsurface soils and to facilitate the collection of groundwater samples from the north side of the Site. The well locations are indicated on Figure 2.

Prior to drilling, TRC notified Washington One-Call Service to identify publicly owned subsurface utilities at the Site. The notification was submitted one week prior to monitoring well installations. A private utility locator was also utilized to confirm the absence of any on-property, subsurface utilities prior to commencing drilling operations.

TRC subcontracted with Cascade Environmental (Cascade) of Woodinville, Washington for the installation of MW-1 and MW-2 using direct-push technology (DPT). Soil from each boring was sampled on a continuous basis, field screened for signs of impacts using a photoionization detector (PID), and logged using the Unified Soil Classification System with visual-manual procedures (American Society for Testing and Materials Method 2488D). Soil borings were advanced to approximately 20 feet below ground surface (bgs). Soil boring logs with screening, sample, and well construction information are included in Attachment A.

During well installation operations, groundwater was observed at approximately 12 feet bgs. Field screening did not indicate soil impacts at either of the two borings. Therefore, in accordance with the Work Plan, soil samples were collected at 8 and 15 feet in both borings. Samples were collected directly into laboratory-supplied glass 4-ounce jars and placed into a chilled cooler for delivery to Friedman & Bruya, Inc. (F&BI) in Seattle, Washington, following standard chain-of-custody protocols. All samples were analyzed for total naphthalenes and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by U.S. Environmental Protection Agency (EPA) Method 8270E SIM.

Neither naphthalenes nor cPAHs were detected in any soil sample submitted for analysis. Analytical results are summarized in Table 1, laboratory analytical reports are included in Attachment B, and the locations of both monitoring wells are presented on Figure 2.

At the conclusion of boring advancement and soil sampling operations, wells MW-1 and MW-2 were installed using 2-inch diameter Schedule 40 polyvinyl chloride (PVC) with 10-foot lengths of 0.010-inch machine-slotted screen. A filter pack of 12/20 silica sand was placed in the well anulus from the bottom of the screen interval to 1 foot above the top interval of screen at both monitoring wells. A surface seal of hydrated bentonite was installed from the top of the filter pack interval to within approximately 18 inches bgs. Both monitoring wells were completed with traffic-rated, steel, flush-completion protective monuments set in concrete. Well construction details are included in Attachment A.

Following monitoring well installation, both wells were developed using a dedicated surge block and decontaminated submersible pump to remove fine particles from the well casing and filter pack. During development operations, a total of approximately 90 gallons were purged from MW-1, reaching a final turbidity of 30.1 nephelometric turbidity units (NTU). Approximately 40 gallons were purged from MW-2, reaching a final turbidity of 113 NTU.

INITIAL GROUNDWATER MONITORING

TRC mobilized to the Site on August 24, 2021 to complete the initial groundwater monitoring event. Prior to sampling, depth to groundwater was measured to the nearest 0.01 foot relative to the north side of the top of the well casing. Groundwater was measured at 9.75 and 9.55 feet below the top of the well casing at MW-1 and MW-2, respectively. Following depth-to-groundwater measurements, groundwater was purged from the wells using a peristaltic pump and dedicated tubing at a rate of no more than 100 milliliters (mL) per minute. Field parameters were observed until reaching stabilization, in accordance with the following criteria:

- pH: ± 0.1
- Temperature: ± 3 percent
- Conductivity: ± 3 percent
- ORP: ± 20 millivolts
- DO: ± 10 percent if >0.5 milligrams per liter
- Turbidity: ± 10 percent if >5 NTU

Samples were retained directly from sample tubing into laboratory-supplied 500 mL glass containers. All groundwater samples were handled and transported to F&BI following standard chain-of-custody protocols and submitted for the analysis of naphthalenes and cPAHs by EPA Method 8270E SIM.

Neither naphthalenes nor cPAHs were detected in any groundwater sample submitted for analysis. Analytical results are summarized in Table 2, groundwater elevations are presented in Table 3, and a copy of the laboratory analytical report is included in Attachment B.

All investigation-derived waste produced during monitoring well installation and groundwater sampling operations is currently being temporarily stored on-Site in 55-gallon drums, prior to final disposal.

TRC will continue quarterly groundwater monitoring. The next sampling event is scheduled for November 17, 2021. TRC will keep you apprised of the data via email as it is collected.

INDOOR AIR MONITORING

In accordance with the June 10, 2021 Work Plan, TRC will conduct two indoor air monitoring events to confirm the effectiveness of the installed vapor barrier. One sampling event will be conducted in a heating season and one during a cooling season. During both sampling events, two indoor air samples will be collected from areas of the building that are designed for occupancy. An outdoor background sample will also be collected during each event to compare with observed indoor air concentrations.

The indoor air samples will be collected from approximately 5 feet above floor level, which represents the standard breathing zone of potential occupants. The outdoor sample will be collected from an area upgradient, based the prevailing wind relative to the Site. These air samples will utilize 6-Liter Summa cannisters with a 24-hour inlet regulator, as appropriate for evaluating a residential exposure scenario. Each sample will be analyzed for naphthalene using EPA Method TO-15.

The final schedule of the air monitoring operations is dependent upon the progress of the ongoing construction at the Site. At the time of this Report, the construction is not complete. Indoor air samples will only be collected from rooms with completed windows and interior walls, representative of final conditions.

TRC anticipates the first samples to be collected in the coming winter months. We will keep you apprised of the schedule via email.

CLOSING

If you have any questions or comments regarding final well placement of any information presented, please contact us with any questions.

Sincerely,

ERIC MICHAEL KOLTES

Prepared by:
Ramsey Mauldin
Project Environmental Scientist
rmauldin@trccompanies.com

Reviewed and approved by:
Eric Koltes, L.G.
Senior Geologist
ekoltes@trccompanies.com

cc: Mr. Steve Yoon, MCRT West Coast, LLC

ENCLOSURES

Tables

Table 1 Monitoring Well Installation Soil Analytical Results
Table 2 Groundwater Monitoring Analytical Results
Table 3 Groundwater Elevation Data

Figures

Figure 1 General Vicinity Map
Figure 2 Site Representation

Attachments

Attachment A Well Installation Boring Logs
Attachment B Laboratory Analytical Reports

Tables

Table 1
Monitoring Well Installation Soil Analytical Results
Well Installation and Monitoring Report
Modera River Trail Property
15801 and 15945 Northeast 85th Street, Redmond, Washington

Sample Location	Sample ID	Sample Depth (feet)	Sample Date	Semivolatile Organic Compounds[a]			Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)[a]							TEF-Adjusted Total cPAHs[b]
				Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene	Benzo(a) pyrene	Benz(a) anthracene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Chrysene	Dibenz(a,h) anthracene	Indeno (1,2,3-cd) pyrene	
MW-1	MW-1:8	8	8/18/2021	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
	MW-1:15	15	8/18/2021	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
MW-2	MW-2:8	8	8/18/2021	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
	MW-2:15	15	8/18/2021	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	ND
MTCA Method A or B Soil Cleanup Level[c]				**5**	**34[d]**	**320[d]**	**See Cleanup Level for TEF-Adjusted Total cPAHs**							**0.1**

Notes:
All results presented in milligrams per kilogram (mg/kg).

a Analyzed by 8270E.

b Toxicity Equivalency Factors (TEFs) calculated under WAC 173-340-708(e) in accordance with Table 708-2 (in WAC 173-340-900).

c Model Toxics Control Act (MTCA) Method A Soil Cleanup Level of Unrestricted Land Uses, Table 740-1 of Washington Administrative Code Chapter 170-340-900.

d MTCA Method B Soil Cleanup Levels from Cleanup Levels and Risk Calculations [CLARC] spreadsheet. Where cleanup levels based on carcinogenic and non-carcinogenic risk were available, the lower value was listed.

ND None of the analyzed compounds were detected at a concentration exceeding the laboratory reporting limit.

Table 2
Groundwater Monitoring Analytical Results
Well Installation and Monitoring Report
Modera River Trail Property
15801 and 15945 Northeast 85th Street, Redmond, Washington

Sample ID	Sample Date	Semivolatile Organic Compounds[a]			Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)[a]							TEF-Adjusted Total cPAHs[b]
		Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene	Benzo(a) pyrene	Benz(a) anthracene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Chrysene	Dibenz(a,h) anthracene	Indeno (1,2,3-cd) pyrene	
MW-1	8/24/2021	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	ND
MW-2	8/24/2021	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	ND
MTCA Method A or B Groundwater Cleanup Level[c]		**160**	**1.5[d]**	**32[d]**	**See Cleanup Level for TEF-Adjusted Total cPAHs**							**0.1**

Notes:
All results presented in micrograms per liter (µg/L).
a Analyzed by 8270E.
b Toxicity Equivalency Factors (TEFs) calculated under WAC 173-340-708(e) in accordance with Table 708-2 (in WAC 173-340-900).
c Model Toxics Control Act (MTCA) Method A Groundwater Cleanup Levels, Table 720-1, Washington Administrative Code (WAC) 173-340-900.
d MTCA Method B Groundwater Cleanup Levels from Cleanup Levels and Risk Calculations [CLARC] spreadsheet. Where cleanup levels based on carcinogenic and non-carcinogenic risk were available, the lower value was listed.
ND None of the analyzed compounds were detected at a concentration exceeding the laboratory reporting limit.

Table 3
Groundwater Elevation Data
Well Installation and Monitoring Report
Modera River Trail Property
15801 and 15945 Northeast 85th Street, Redmond, Washington

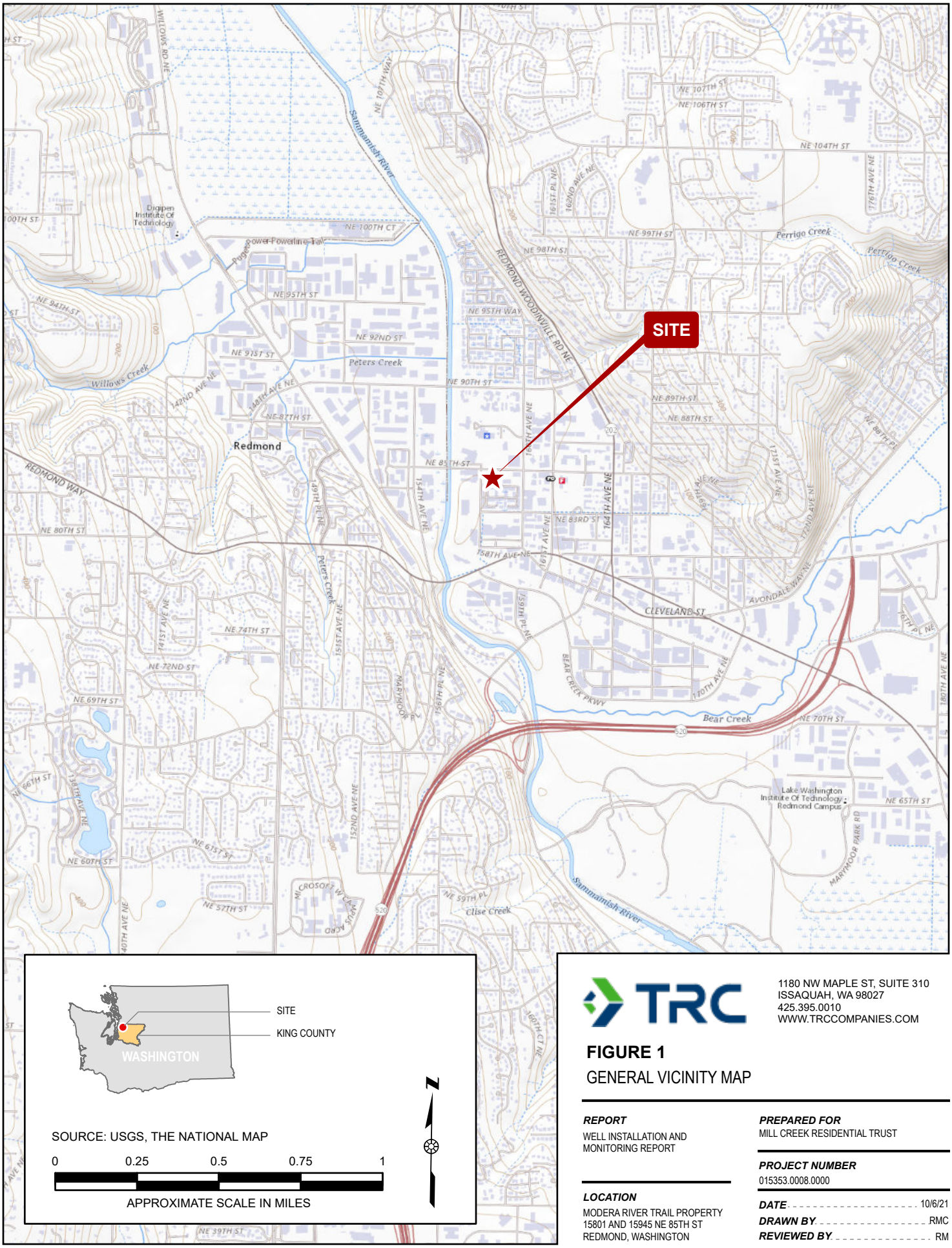
Well ID ID	Date	Measured Total Depth	Depth to Water	Casing Elevation[a]	Calculated Groundwater Elevation
MW-1	8/24/2021	14.82	9.75	32.42	22.67
MW-2	8/24/2021	16.6	9.55	32.59	23.04

Notes:

a Wells surveyed by Pace on August 24, 2021, referenced to North American Vertical Datum of 1988 (NAVD88).

Units: US survey feet

Figures



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

FIGURE 1
GENERAL VICINITY MAP

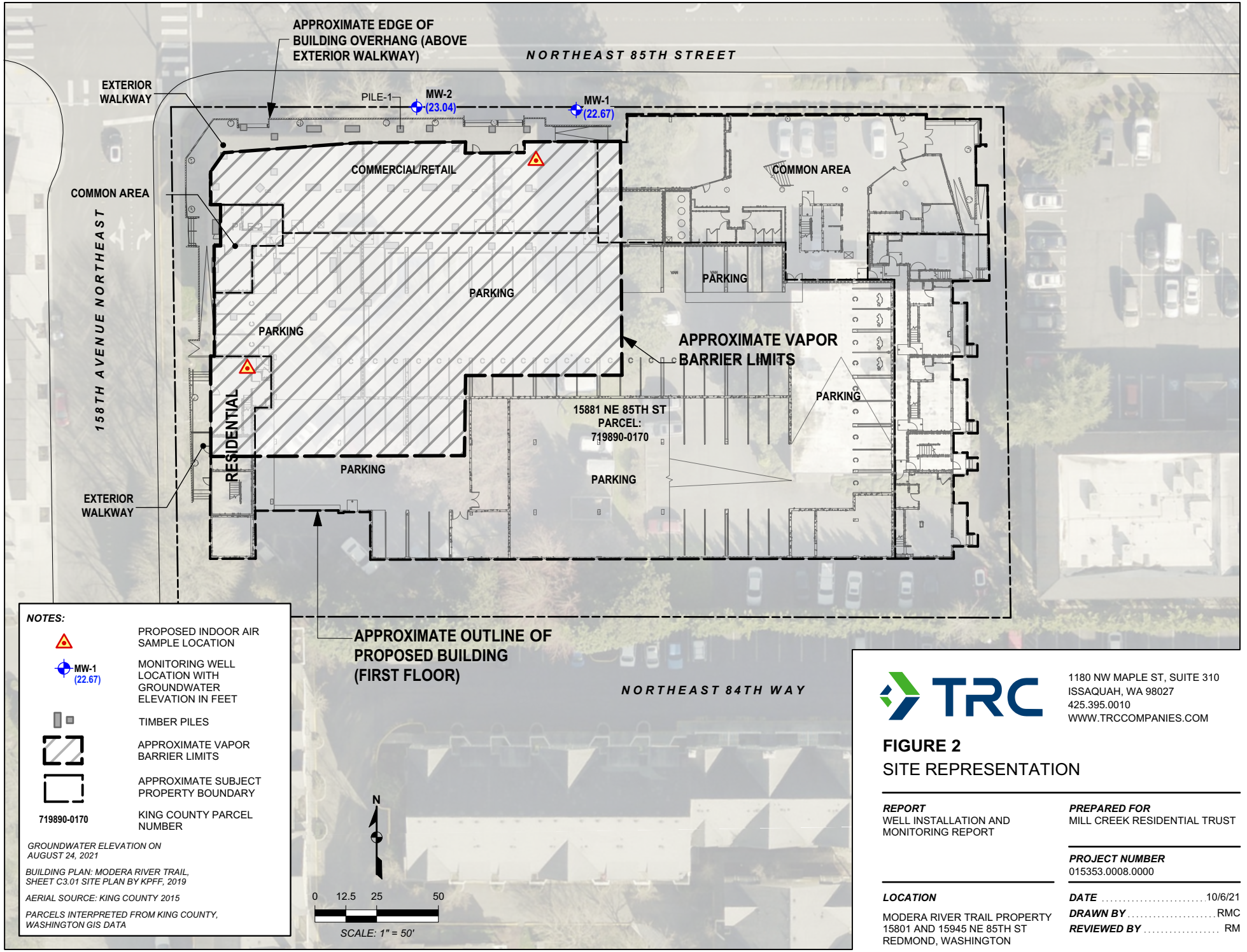
REPORT
WELL INSTALLATION AND MONITORING REPORT

LOCATION
MODERA RIVER TRAIL PROPERTY
15801 AND 15945 NE 85TH ST
REDMOND, WASHINGTON

PREPARED FOR
MILL CREEK RESIDENTIAL TRUST

PROJECT NUMBER
015353.0008.0000

DATE 10/6/21
DRAWN BY RMC
REVIEWED BY RM



NOTES:

- PROPOSED INDOOR AIR SAMPLE LOCATION
- MW-1 (22.67) — MONITORING WELL LOCATION WITH GROUNDWATER ELEVATION IN FEET
- TIMBER PILES
- APPROXIMATE VAPOR BARRIER LIMITS
- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- 719890-0170 — KING COUNTY PARCEL NUMBER

GROUNDWATER ELEVATION ON AUGUST 24, 2021

BUILDING PLAN: MODERA RIVER TRAIL, SHEET C3.01 SITE PLAN BY KPFF, 2019

AERIAL SOURCE: KING COUNTY 2015

PARCELS INTERPRETED FROM KING COUNTY, WASHINGTON GIS DATA

TRC

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

FIGURE 2
SITE REPRESENTATION

REPORT
WELL INSTALLATION AND MONITORING REPORT

PREPARED FOR
MILL CREEK RESIDENTIAL TRUST

PROJECT NUMBER
015353.0008.0000

LOCATION
MODERA RIVER TRAIL PROPERTY
15801 AND 15945 NE 85TH ST
REDMOND, WASHINGTON

DATE 10/6/21
DRAWN BY ..... RMC
REVIEWED BY ..... RM

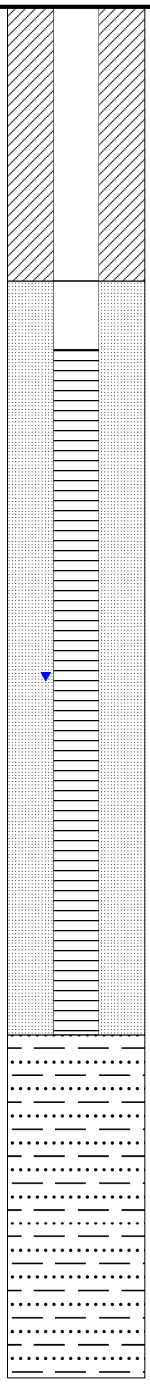
Attachment A
Well Installation Boring Logs

TRC

BORING ID: MW-1

SITE ADDRESS **15801 85th Street NE, Redmond, WA**	CLIENT: **MCRT**	CASING MATERIAL AND SIZE: **2" SCH 40 PVC**
DRILLING CONTRACTOR: **Cascade Drilling**	PROJECT #: **15353**	SCREEN SIZE: **0.010" Slot**
DRILLING EQUIPMENT: **Geoprobe 7822**	DATE: **8/18/2021**	SCREEN INTERVAL: **5-15 ft bgs**
DRILLING METHOD: **Direct Push Technology**	GROUND SURFACE ELEV. FT AMSL: **Not Measured**	FILTER PACK: **Silica Sand**
LOGGED BY: **A. York** / BOREHOLE SIZE: **2.5" OD**	TOTAL DEPTH: **20**	FILTER PACK INTERVAL: **4-15 ft bgs**

Depth (feet)	USCS	Description (USCS name; Color; Moisture; Density; Plasticity; Dilatency; TRC description; Other)	Interval & % Recovery	PID (ppm)	Sample
0	ML	SILT; light gray; damp; dense; low plasticity.	60	1.0	
4	ML	Color change to dark reddish brown; medium plasticity.	60	6.0	
8	SM	SILTY SAND; reddish brown; moist; medium dense; mostly fine sand with some silt and few gravel.	90	11.0	MW-1:8
13	SP	POORLY-GRADED SAND; grayish brown; wet; medium dense; mostly fine to medium sand with trace silt.	100	14.0	
17	SM	SILTY SAND; grayish brown; wet; medium dense; mostly fine sand with some silt.		19.0	MW-1:15
19	GM	SILTY GRAVEL WITH SAND; grayish brown; wet; medium dense; mostly gravel with some silt and fine to coarse sand.		20.0	



NOTES: MW-1 terminated at 20 ft bgs.

BORING ID: MW-2

SITE ADDRESS: **15801 85th Street NE, Redmond, WA**	CLIENT: **MCRT**	CASING MATERIAL AND SIZE: **2" SCH 40 PVC**
DRILLING CONTRACTOR: **Cascade Drilling**	PROJECT #: **15353**	SCREEN SIZE: **0.010" Slot**
DRILLING EQUIPMENT: **Geoprobe 7822**	DATE: **8/18/2021**	SCREEN INTERVAL: **6-16 ft bgs**
DRILLING METHOD: **Direct Push Technology**	GROUND SURFACE ELEV. FT AMSL: **Not Measured**	FILTER PACK: **Silica Sand**
LOGGED BY: **A. York** / BOREHOLE SIZE: **2.5" OD**	TOTAL DEPTH: **20**	FILTER PACK INTERVAL: **4-16 ft bgs**

Depth (feet)	USCS	Description (USCS name; Color; Moisture; Density; Plasticity; Dilatency; TRC description; Other)	Interval & % Recovery	PID (ppm)	Sample
0	ML	SILT; light gray; damp; dense; low plasticity.	60	1.0	
4	ML	Color change to grayish brown; low plasticity.		4.0	
8	SP	POORLY-GRADED SAND; grayish brown; wet; medium dense; mostly fine sand with trace silt.	60	6.0	MW-2:8
13	SW	WELL-GRADED SAND; brown; damp; loose; mostly fine to coarse sand with few gravel.	40	11.0	
17	SM	SILTY SAND; grayish brown; wet; medium dense; mostly fine sand with some silt.	80	14.0	MW-2:15
19	GM	SILTY GRAVEL WITH SAND; grayish brown; wet; medium dense; mostly gravel with some silt and fine to coarse sand.		16.0	
20				19.0	
				20.0	

Well Construction: 2" Sch. 40 PVC Casing; 2x12 Silica Sand Filter Pack; 0.010" Slot Screen

NOTES: MW-2 terminated at 20 ft bgs.

Attachment B
Laboratory Analytical Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

August 25, 2021

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

RE: MCRT Redmond 015353, F&BI 108320

Dear Mr Mauldin:

Included are the results from the testing of material submitted on August 20, 2021 from the MCRT Redmond 015353, F&BI 108320 project. There are 8 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Cynthia Moon
TRC0825R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 20, 2021 by Friedman & Bruya, Inc. from the TRC Environmental MCRT Redmond 015353, F&BI 108320 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	TRC Environmental
108320-01	MW-1:8
108320-02	MW-1:15
108320-03	MW-2:8
108320-04	MW-2:15

All quality control requirements were acceptable.

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-1:8	Client:	TRC Environmental
Date Received:	08/20/21	Project:	MCRT Redmond 015353
Date Extracted:	08/20/21	Lab ID:	108320-01 1/5
Date Analyzed:	08/20/21	Data File:	082007.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	77	39	103
Phenol-d6	82	48	109
Nitrobenzene-d5	81	23	138
2-Fluorobiphenyl	87	50	150
2,4,6-Tribromophenol	103	40	127
Terphenyl-d14	98	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-1:15	Client:	TRC Environmental
Date Received:	08/20/21	Project:	MCRT Redmond 015353
Date Extracted:	08/20/21	Lab ID:	108320-02 1/5
Date Analyzed:	08/20/21	Data File:	082008.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	79	39	103
Phenol-d6	85	48	109
Nitrobenzene-d5	82	23	138
2-Fluorobiphenyl	88	50	150
2,4,6-Tribromophenol	108	40	127
Terphenyl-d14	104	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-2:8	Client:	TRC Environmental
Date Received:	08/20/21	Project:	MCRT Redmond 015353
Date Extracted:	08/20/21	Lab ID:	108320-03 1/5
Date Analyzed:	08/20/21	Data File:	082009.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	77	39	103
Phenol-d6	81	48	109
Nitrobenzene-d5	81	23	138
2-Fluorobiphenyl	88	50	150
2,4,6-Tribromophenol	104	40	127
Terphenyl-d14	100	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-2:15	Client:	TRC Environmental
Date Received:	08/20/21	Project:	MCRT Redmond 015353
Date Extracted:	08/20/21	Lab ID:	108320-04 1/5
Date Analyzed:	08/20/21	Data File:	082010.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	82	39	103
Phenol-d6	85	48	109
Nitrobenzene-d5	82	23	138
2-Fluorobiphenyl	89	50	150
2,4,6-Tribromophenol	105	40	127
Terphenyl-d14	99	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	TRC Environmental
Date Received:	Not Applicable	Project:	MCRT Redmond 015353
Date Extracted:	08/20/21	Lab ID:	01-1898 mb 1/5
Date Analyzed:	08/20/21	Data File:	082006.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	88	39	103
Phenol-d6	92	48	109
Nitrobenzene-d5	88	23	138
2-Fluorobiphenyl	97	50	150
2,4,6-Tribromophenol	104	40	127
Terphenyl-d14	113	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Date of Report: 08/25/21
Date Received: 08/20/21
Project: MCRT Redmond 015353, F&BI 108320

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: 108320-02 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.83	<0.01	77	73	50-150	5
2-Methylnaphthalene	mg/kg (ppm)	0.83	<0.01	80	78	50-150	3
1-Methylnaphthalene	mg/kg (ppm)	0.83	<0.01	80	78	50-150	3
Benz(a)anthracene	mg/kg (ppm)	0.83	<0.01	89	88	50-150	1
Chrysene	mg/kg (ppm)	0.83	<0.01	91	89	50-150	2
Benzo(a)pyrene	mg/kg (ppm)	0.83	<0.01	92	89	50-150	3
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	<0.01	113	93	50-150	19
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	<0.01	96	94	50-150	2
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	<0.01	96	87	50-150	10
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	<0.01	99	92	50-150	7

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.83	80	61-102
2-Methylnaphthalene	mg/kg (ppm)	0.83	82	62-108
1-Methylnaphthalene	mg/kg (ppm)	0.83	82	62-108
Benz(a)anthracene	mg/kg (ppm)	0.83	87	64-116
Chrysene	mg/kg (ppm)	0.83	90	66-119
Benzo(a)pyrene	mg/kg (ppm)	0.83	86	62-116
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	106	61-118
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	89	65-119
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	117	64-130
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	100	67-131

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.

108320

SAMPLE CHAIN OF CUSTODY

ME 08/20/21

D02

Page # 1 of 1

Report To Ramsey Mauldin

Company TRC

Address 1180 NW Maple St. Suite 310

City, State, ZIP Issaquah, WA 98027

Phone 206-960-9050 Email Rmauldin@trccompanies.com

SAMPLERS (*signature*)

PROJECT NAME: MCRT Redmond

PO #: 915359

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	cPAHs EPA 8270D	PCBs EPA 8082	naphthalene EPA 8260D				Notes
MW-1:8	01 A⇒B	8-18-21	0930	Soil	2						X		X				
MW-1:15	02	8.18.21	0936	Soil	2						X		X				
MW-2:8	03	8/18/21	1315	Soil	2						X		X				
MW-2:15	04	8/18/21	1320	Soil	2						X		X				
																	Samples received at 4 °C

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Austin York	TRC	8-19-21	1230
Received by:	Michael Eichhorn	FCBm	8/20/21	0630
Relinquished by:				
Received by:				

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

September 1, 2021

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

RE: 015353.8 MCRT Redmond, F&BI 108383

Dear Mr Mauldin:

Included are the results from the testing of material submitted on August 25, 2021 from the 015353.8 MCRT Redmond, F&BI 108383 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Cynthia Moon
TRC0901R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 25, 2021 by Friedman & Bruya, Inc. from the TRC Environmental 015353.8 MCRT Redmond, F&BI 108383 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	TRC Environmental
108383-01	MW-1
108383-02	MW-2

All quality control requirements were acceptable.

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-1	Client:	TRC Environmental
Date Received:	08/25/21	Project:	015353.8, F&BI 108383
Date Extracted:	08/27/21	Lab ID:	108383-01 1/2
Date Analyzed:	08/27/21	Data File:	082718.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	32	10	60
Phenol-d6	28	10	49
Nitrobenzene-d5	80	15	144
2-Fluorobiphenyl	77	25	128
2,4,6-Tribromophenol	68	10	142
Terphenyl-d14	90	41	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-2	Client:	TRC Environmental
Date Received:	08/25/21	Project:	015353.8, F&BI 108383
Date Extracted:	08/27/21	Lab ID:	108383-02 1/2
Date Analyzed:	08/27/21	Data File:	082719.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	31	10	60
Phenol-d6	26	10	49
Nitrobenzene-d5	77	15	144
2-Fluorobiphenyl	72	25	128
2,4,6-Tribromophenol	67	10	142
Terphenyl-d14	90	41	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	TRC Environmental
Date Received:	Not Applicable	Project:	015353.8, F&BI 108383
Date Extracted:	08/27/21	Lab ID:	01-2035 mb2 1/2
Date Analyzed:	08/27/21	Data File:	082708.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	27	10	60
Phenol-d6	15	10	49
Nitrobenzene-d5	88	15	144
2-Fluorobiphenyl	77	25	128
2,4,6-Tribromophenol	79	10	142
Terphenyl-d14	96	41	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04

Date of Report: 09/01/21
Date Received: 08/25/21
Project: 015353.8 MCRT Redmond, F&BI 108383

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample 1/0.5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	5	78	79	66-94	1
2-Methylnaphthalene	ug/L (ppb)	5	81	84	68-98	4
1-Methylnaphthalene	ug/L (ppb)	5	79	82	67-97	4
Benz(a)anthracene	ug/L (ppb)	5	88	89	70-130	1
Chrysene	ug/L (ppb)	5	89	88	70-130	1
Benzo(a)pyrene	ug/L (ppb)	5	89	90	70-130	1
Benzo(b)fluoranthene	ug/L (ppb)	5	91	94	62-130	3
Benzo(k)fluoranthene	ug/L (ppb)	5	89	90	70-130	1
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	99	92	70-130	7
Dibenz(a,h)anthracene	ug/L (ppb)	5	98	94	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. 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.

108383

SAMPLE CHAIN OF CUSTODY

ME 8/25/21

E03

Page # 1 of 1

Report To Ramsey Mauldin

Company TRC

Address 11430 NW Maple St Suite 310

City, State, ZIP Issaquah, WA

Phone 425-395-0010 Email rmauldin@trccompanies.com

SAMPLERS (*signature*) Ramsey Mauldin

PROJECT NAME: 015353.8 MCRT REDMOND

PO #:

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	cPAHs 8270	Naphthalenes 8270			Notes
MW-1	01	8-24-21	0925	WATER	1								X	X			
MW-2	02	↓	1000	↓	↓								X	X			

ANALYSES REQUESTED

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Ramsey Mauldin	Ramsey Mauldin	TRC	8-25-21	0630
Received by:	Michael Edith	F&B	8/25/21	0630
Relinquished by:				
Received by:				

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

Attachment C
Indoor Air Monitoring Report, dated June 1, 2022

1180 NW Maple St., Suite 310
Issaquah, WA 98027
T 425.395.0010
TRCcompanies.com

June 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
Modera River Trail
15801 and 15945 NE 85th 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* (Report) for the Modera River Trail Site located at 15801 and 15945 NE 85th Street in Redmond, Washington (Site). The location of the Site is depicted on Figure 1. This Report is being submitted on behalf of MCRT West Coast, LLC (MCRT).

On June 10, 2021, TRC submitted a Work Plan via email for groundwater and indoor air monitoring to the Washington State Department of Ecology (Ecology). This Work Plan was prepared in response to Ecology's email correspondence on April 28, 2021. Ecology indicated agreement with the details included in the Work Plan via email on June 11, 2021.

TRC has since performed groundwater monitoring and two indoor air monitoring events. Groundwater monitoring results were presented in a letter report dated October 11, 2021.

The purpose of this Report is to present the findings of recent indoor air monitoring and anticipated next steps.

INITIAL SITE VISIT

Construction at the Site was nearing completion in February 2022. After consulting with MCRT, it was determined that construction had been completed sufficiently enough that indoor air samples would be representative of future conditions. Therefore, TRC performed a Site visit on February 5, 2022 for a potential sampling event. However, during the Site visit, it was observed that a recent paint/primer event associated with touch-up construction work had occurred in the representative sampling locations. Strong paint and primer odors were observed.

General construction materials, including primers, paints, adhesives, and dry wall materials, are known to contain trace concentrations of naphthalene. When these materials are present and/or recently used at a facility, an air sample collected in their proximity may be prone to cross contamination. Concentrations of naphthalene released from these materials to air are expected to dissipate over time and do not persist.

Therefore, due to the high potential for cross contamination, TRC did not submit samples associated with this mobilization for analysis. It was decided to allow for a 2-week venting period prior to sample collection.

FEBUARY 2022 AIR SAMPLING

TRC returned to the Site on February 19 to perform indoor air sampling. 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 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 Friedman & Bruya, Inc. (F&BI). Intake tubing was set at approximately 5 feet above ground surface and Samples were retrieved from the Site on February 20, 2022. The 24-hour sampling period was representative of typical residential exposure within the facility. Facility heaters were running at normal settings during the sampling process.

Samples were submitted to F&BI for analysis of naphthalene by U.S. Environmental Protection Agency (EPA) Method TO-15. A summary of analytical results is included in Table 1. Laboratory analytical reports are included in Attachment A.

Naphthalene was detected in sample IA-1 at a concentration of 0.13 micrograms per cubic meter (µg/m^3) and in and sample IA-2 at a concentration of 0.15 µg/m^3. Naphthalene was not detected in background sample AA-1 at a concentration exceeding the method detection limit of 0.057 µg/m^3.

Concentrations observed at IA-1 and IA-2 were adjusted using half the method detection. This resulted in the following adjusted naphthalene concentrations:

- IA-1: 0.1015 µg/m^3
- IA-2: 0.1215 µg/m^3

The adjusted concentrations of naphthalene at IA-1 and IA-2 exceeded the Model Toxics Control Act (MTCA) Method B carcinogenic indoor air cleanup level (Method B CUL) of 0.074 µg/m^3.

Due to the recent installation of drywall, associated adhesives/sealants, and primer/paint events, TRC concluded that a high likelihood of cross contamination with construction materials remained a potential factor in the sampling results. Therefore, the observed presence of naphthalene at concentrations exceeding the Method B CUL is not likely representative of future conditions.

TRC recommended that MCRT perform ventilation to allow for construction-related vapors to dissipate prior to resampling.

MARCH 2022 AIR SAMPLING

After an approximate 4-week waiting period with periodic ventilation, TRC mobilized to the Site on March 23 to perform indoor air re-sampling. During this sampling event, samples were collected from the exact same locations as the February 2022 sampling event and collected using the exact same methods. Sample locations are depicted on Figure 2. Facility heaters were again running at normal settings during the sampling process.

Samples were submitted to F&BI for analysis of naphthalene via EPA Method TO-15. A summary of analytical results is included in Table 1. Laboratory analytical reports are included in Attachment A.

Naphthalene was detected in both of the samples collected at IA-1 and IA-2 at an identical concentration of 0.094 µg/m^3. Naphthalene was not detected at AA-1 at a concentration exceeding the method detection limit of 0.057 µg/m^3.

Concentrations observed at IA-1 and IA-2 were adjusted using half the method detection limit. This resulted in the following adjusted naphthalene concentrations:

- IA-1: 0.0655 µg/m^3
- IA-2: 0.0655 µg/m^3

The adjusted concentrations of naphthalene at IA-1 and IA-2 are less than the Method B CUL of 0.074 µg/m^3.

CONCLUSIONS

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

- Samples collected during the February 2022 event contained naphthalene at concentrations exceeding the Method B CUL. It is TRC's opinion that these exceedances were due to cross contamination with construction materials present at the time of sampling. Therefore, these results are not considered representative of future conditions.

- Samples collected during the March re-sampling event were in compliance with the Method B CUL. These samples were collected after an appropriate waiting period and ventilation. This sampling event demonstrates a lack of persistent naphthalene in indoor air during the heating season.

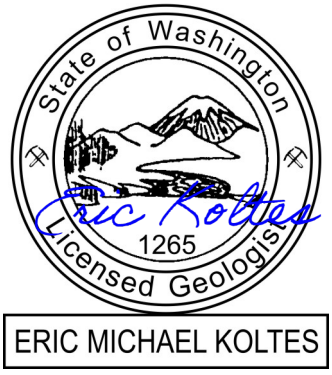
FUTURE INDOOR AIR SAMPLING COMPLIANCE

In accordance with the Work Plan, TRC plans to perform an additional indoor air sampling event in July 2022. This sampling event will evaluate concentrations of naphthalene in indoor air during the cooling season. Future sample locations and sampling methods will be the same as those used during the investigation documented herein.

CLOSING

Please contact us at the email addresses below or at (425) 395-0010 if you have any questions or comments regarding the previous or planned indoor air sampling events.

Sincerely,



Prepared by:
Ramsey Mauldin
Senior Environmental Scientist
rmauldin@trccompanies.com

Reviewed and approved by:
Eric Koltes, L.G.
Principal Geologist
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

Tables

Table 1
Indoor Air Monitoring Analytical Results
Indoor Air Monitoring Report
Modera River Trail Property
15801 and 15945 Northeast 85th Street, Redmond, Washington

Event	Sample Type	Sample ID	Naphthalene[a]
February 19, 2022	Ambient Air	AA-1	<0.057 j
	Indoor Air	IA-1	**0.13**
		IA-1 (adjusted)[b]	**0.1015**
		IA-2	**0.15**
		IA-2 (adjusted)[b]	**0.1215**
March 23, 2022	Ambient Air	AA-1	<0.057 j
	Indoor Air	IA-1	**0.094 j**
		IA-1 (adjusted)[b]	**0.0655**
		IA-2	**0.094 j**
		IA-2 (adjusted)[b]	**0.0655**
Indoor Air Cleanup Level[c]			**0.074**

Notes:

All results presented in micrograms per cubic meter (µg/m^3).
Half the reporting limit used to calculate adjusted values when background samples were less than the detection limit.

Bold Bold results exceed the laboratory reporting limit.

Shaded results exceed the cleanup level.

a Analyzed by EPA Method TO-15.

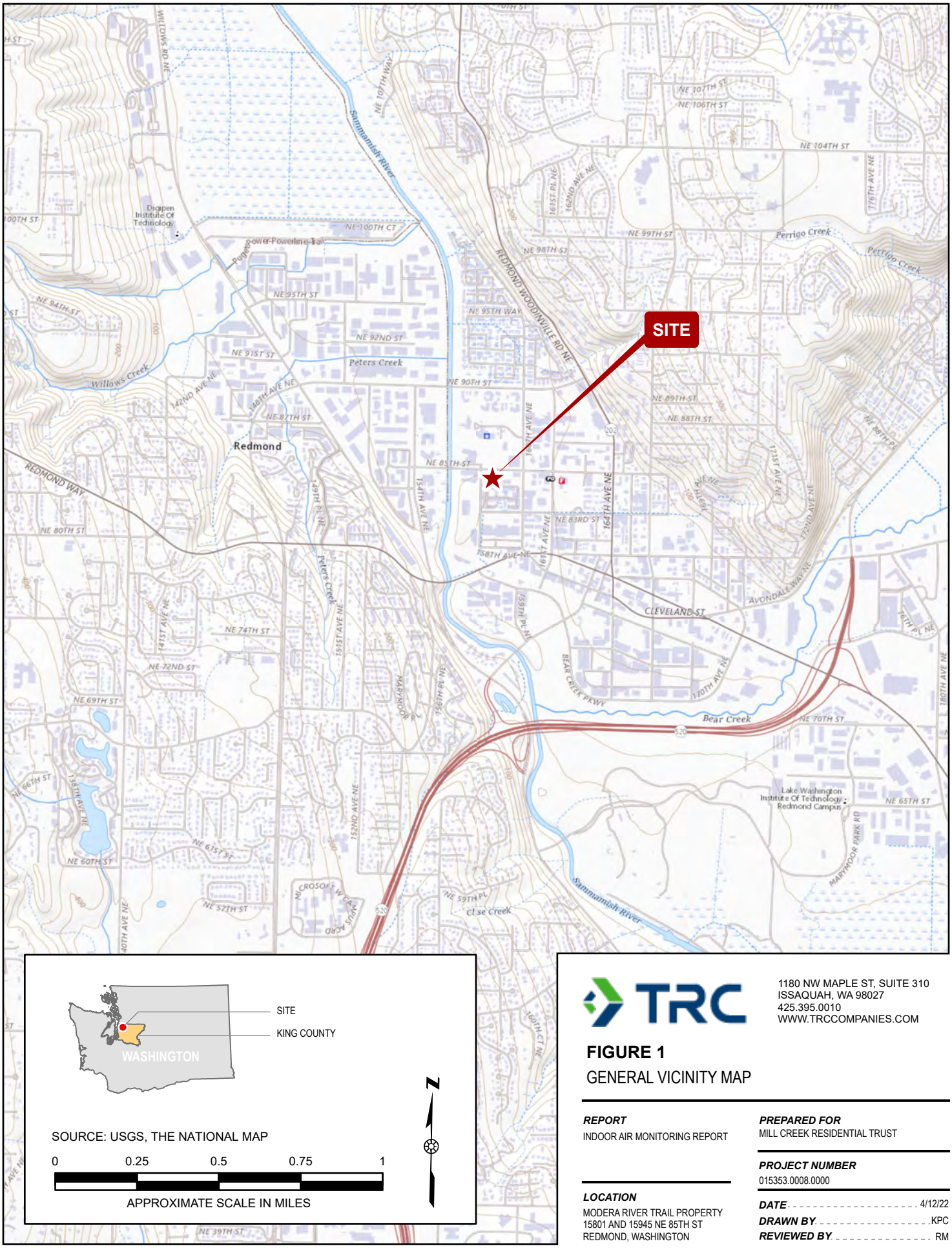
b Adjusted indoor air value calculated by subtracting background from indoor air results.

c Model Toxics Control Act (MTCA) Method B Indoor Air Cleanup Level from Cleanup Levels and Risk Calculations (CLARC) database. Where levels based on 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



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

FIGURE 1

GENERAL VICINITY MAP

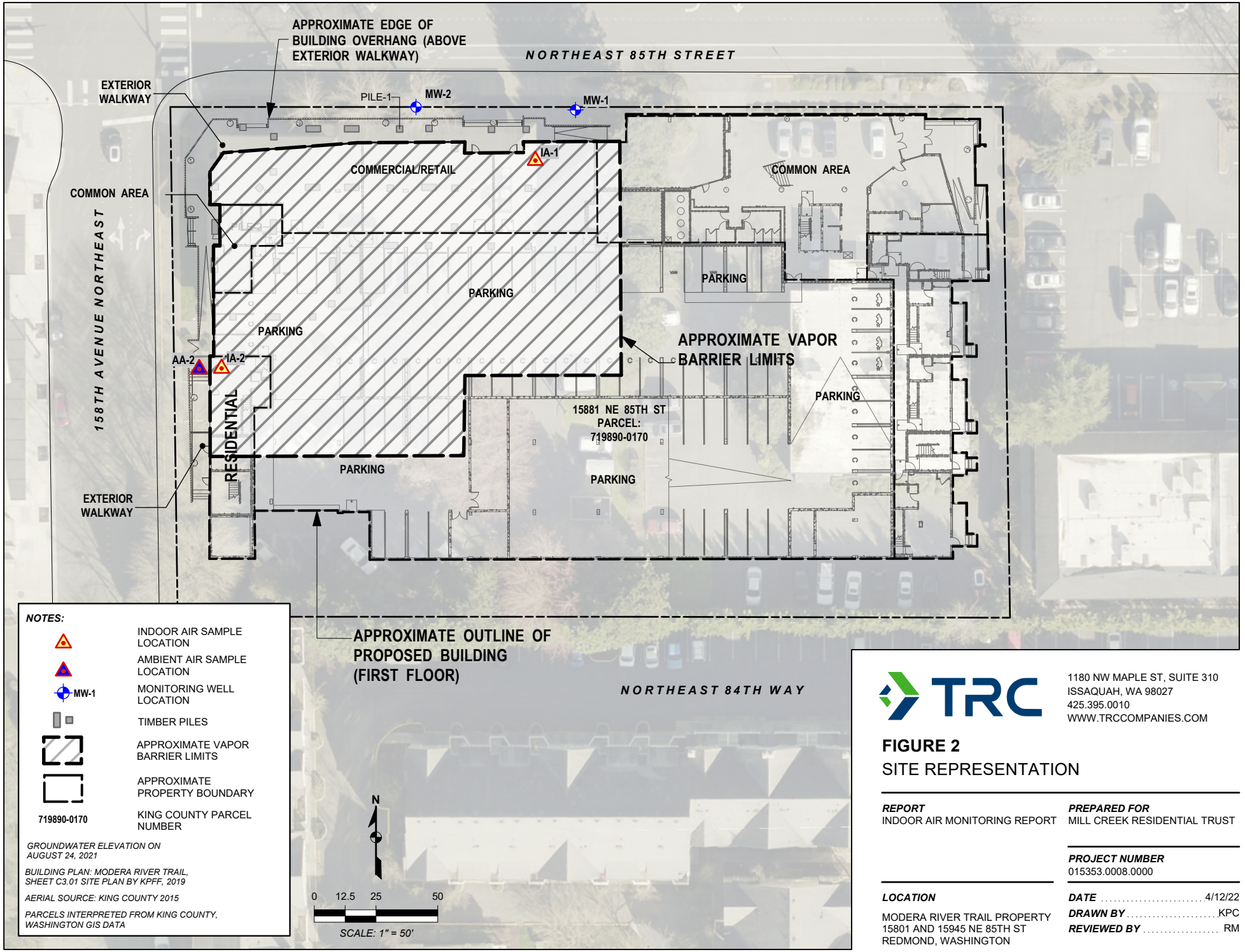
REPORT
INDOOR AIR MONITORING REPORT

LOCATION
MODERA RIVER TRAIL PROPERTY
15801 AND 15945 NE 85TH ST
REDMOND, WASHINGTON

PREPARED FOR
MILL CREEK RESIDENTIAL TRUST

PROJECT NUMBER
015353.0008.0000

DATE 4/12/22
DRAWN BY KPC
REVIEWED BY RM



TRC

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

FIGURE 2
SITE REPRESENTATION

REPORT
INDOOR AIR MONITORING REPORT

PREPARED FOR
MILL CREEK RESIDENTIAL TRUST

PROJECT NUMBER
015353.0008.0000

LOCATION
MODERA RIVER TRAIL PROPERTY
15801 AND 15945 NE 85TH ST
REDMOND, WASHINGTON

DATE 4/12/22
DRAWN BY KPC
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

March 2, 2022

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

RE: 015353.8 P1 T5 MCRT Redmond, F&BI 202382

Dear Mr Mauldin:

Included are the results from the testing of material submitted on February 21, 2022 from the 015353.8 P1 T5 MCRT Redmond, F&BI 202382 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Cynthia Moon
TRC0302R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 21, 2022 by Friedman & Bruya, Inc. from the TRC Environmental 015353.8 P1 T5 MCRT Redmond, F&BI 202382 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	TRC Environmental
202382-01	IA-1
202382-02	IA-2
202382-03	AA-1

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-1	Client:	TRC Environmental
Date Received:	02/21/22	Project:	015353.8 P1 T5 MCRT Redmond
Date Collected:	02/19/22	Lab ID:	202382-01
Date Analyzed:	02/23/22	Data File:	023112.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
Naphthalene	0.13	0.024

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-2	Client:	TRC Environmental
Date Received:	02/21/22	Project:	015353.8 P1 T5 MCRT Redmond
Date Collected:	02/19/22	Lab ID:	202382-02
Date Analyzed:	02/23/22	Data File:	023113.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
Naphthalene	0.15	0.028

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA-1	Client:	TRC Environmental
Date Received:	02/21/22	Project:	015353.8 P1 T5 MCRT Redmond
Date Collected:	02/19/22	Lab ID:	202382-03
Date Analyzed:	02/23/22	Data File:	023114.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
Naphthalene	<0.057 j	<0.011 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	TRC Environmental
Date Received:	Not Applicable	Project:	015353.8 P1 T5 MCRT Redmond
Date Collected:	Not Applicable	Lab ID:	02-0468 MB
Date Analyzed:	02/23/22	Data File:	023111.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
Naphthalene	<0.057 j	<0.011 j

Date of Report: 03/02/22
Date Received: 02/21/22
Project: 015353.8 P1 T5 MCRT Redmond, F&BI 202382

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

Laboratory Code: 202336-03 1/5.6 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Naphthalene	ug/m3	<1.5	<1.5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	ug/m3	71	92	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. 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 02.21.22

202382

Report To Ramsey Mauldin

Company TRC

Address 1400 NW Maple St. Ste 310

City, State, ZIP Issaquah, WA

Phone 425-395-0010 Email rmauldin@trecompanies.com

SAMPLERS (*signature*) Ramsey Mauldin

PROJECT NAME & ADDRESS: 015353.8 P1 TS MCRT Redmond

PO #

NOTES:

INVOICE TO

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	Naphthalene	Notes
IA-1	01	20543	15213	(IA) / SG	2-19-20	>30	1010	5.5	1010						X	
IA-2	02	18564	15216	(IA) / SG	2-19-20	30	1016	6	1016						X	
AA-1	03	18566	15209	(IA) / SG	2-19-20	>30	1024	6	1024						X	
				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

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Ramsey Mauldin	Ramsey Mauldin	TRC	2-21-22	0910
Received by:	Hong Nguyen	HONG NGUYEN	FB2	2/21/22	9:10
Relinquished by:					
Received by:			Samples received at 18 °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.

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

April 5, 2022

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

RE: 015353.8 P1 T8 MCRT Redmond, F&BI 203467

Dear Mr Mauldin:

Included are the results from the testing of material submitted on March 25, 2022 from the 015353.8 P1 T8 MCRT Redmond, F&BI 203467 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Cynthia Moon
TRC0405R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 25, 2022 by Friedman & Bruya, Inc. from the TRC Environmental 015353.8 P1 T8 MCRT Redmond, F&BI 203467 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	TRC Environmental
203467 -01	IA-1
203467 -02	IA-2
203467 -03	AA-1

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-1	Client:	TRC Environmental
Date Received:	03/25/22	Project:	015353.8 P1 T8 MCRT Redmond
Date Collected:	03/23/22	Lab ID:	203467-01
Date Analyzed:	03/29/22	Data File:	032846.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration ug/m3	ppbv
Naphthalene	0.094 j	0.018 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-2	Client:	TRC Environmental
Date Received:	03/25/22	Project:	015353.8 P1 T8 MCRT Redmond
Date Collected:	03/23/22	Lab ID:	203467-02
Date Analyzed:	03/29/22	Data File:	032847.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
Naphthalene	0.094 j	0.018 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA-1	Client:	TRC Environmental
Date Received:	03/25/22	Project:	015353.8 P1 T8 MCRT Redmond
Date Collected:	03/23/22	Lab ID:	203467-03
Date Analyzed:	03/29/22	Data File:	032848.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	88	70	130

Compounds:	Concentration ug/m3	ppbv
Naphthalene	<0.057 j	<0.011 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	TRC Environmental
Date Received:	Not Applicable	Project:	015353.8 P1 T8 MCRT Redmond
Date Collected:	Not Applicable	Lab ID:	02-0705 MB
Date Analyzed:	03/29/22	Data File:	032845.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

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

Compounds:	Concentration ug/m3	ppbv
Naphthalene	<0.057 j	<0.011 j

Date of Report: 04/05/22
Date Received: 03/25/22
Project: 015353.8 P1 T8 MCRT Redmond, F&BI 203467

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

Laboratory Code: 203420-01 1/5.9 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Naphthalene	ug/m3	<1.5	<1.5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	ug/m3	71	78	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. 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 03-25-22

203467

Report To Ramsey Mauldin

Company TRC

Address 1180 NW Maple St. Ste. 310

City, State, ZIP Issaquah WA 98027

Phone 425-395-0019 Email rmauldin@trccompanies.com

SAMPLERS (*signature*) Ramsey Mauldin

PROJECT NAME & ADDRESS: 015353.8 P1 T8 MCRT Redmond

PO #

NOTES:

INVOICE TO

Page # 1 of 1

TURNAROUND TIME
- [x] 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	TO-15 Naphthalene	Notes
IA-1	01	23230	15214	(IA) / SG	3-23-22	>30	1642	6.5	1642						X	
IA-2	02	20550	15215	(IA) / SG	"	>30	1637	5	1637						X	
AA-1	03	21453	15212	(IA) / SG	"	30	1633	3	1633						X	
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Ramsey Mauldin	Ramsey Mauldin	TRC		
Received by: Amy Wburg	Amy Wburg	F&B	3/25/22	1310
Relinquished by:				
Received by:		Samples received at 22°C		

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

Attachment D
2022 Annual Groundwater Monitoring Report, dated August 17, 2022

1180 NW Maple St., Suite 310
Issaquah, WA 98027

T 425.395.0010
TRCcompanies.com

August 17, 2022

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

Re: 2022 Annual Groundwater Monitoring Report
Modera River Trail
15801 and 15945 Northeast 85th 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 *2022 Annual Groundwater Monitoring Report* (Report) for the Modera River Trail Site. The Modera River Trail Site is located at 15801 and 15945 NE 85th Street in Redmond, Washington (Site). The location of the Site is depicted on Figure 1. The work presented herein was conducted on behalf of Mill Creek Residential Trust West Coast, LLC (MCRT). The Site is currently owned by NE 85th 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. The 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. Indoor air monitoring is not described in this Report.

Following Ecology's approval, TRC completed four consecutive quarters of groundwater monitoring in accordance with the Work Plan. The purpose of this Report is to present the findings of the quarterly groundwater sampling events conducted between August 2021 to May 2022.

GROUNDWATER SAMPLING PROCEDURES

TRC conducted four consecutive groundwater monitoring events at the Site on August 24, 2021, November 18, 2021, February 17, 2022, and May 16, 2022. TRC collected samples from on-site monitoring wells MW-1 and MW-2. The locations of monitoring wells MW-1 and MW-2 are depicted on Figure 2.

Prior to groundwater sampling, both wells were opened to allow groundwater elevations to equilibrate after exposure to barometric conditions. TRC collected depth-to-water measurements at each well using an electronic water level meter. The depth to water was measured to the nearest 0.01 foot relative to the northernmost point top of casing (TOC) on the well. The depth-to-water measurements at the Site ranged from 5.00 to 9.75 feet below TOC. Groundwater elevation data are summarized in Table 1.

After measuring groundwater levels, TRC collected groundwater samples using low-flow sampling techniques. Each well was purged using a peristaltic pump at a flow rate of less than or equal to 100 milliliters per minute. During well purging, field parameters (temperature, conductivity, pH, dissolved oxygen [DO], and oxidation-reduction potential [ORP]) were recorded using a calibrated water quality meter and flow-through cell. Turbidity was also measured using a turbidimeter. These parameters were recorded every 3 to 5 minutes until groundwater conditions stabilized. Conditions were considered stabilized when three consecutive readings met the following criteria:

- Temperature: ± 3 percent
- pH: ± 0.1
- Conductivity: ± 3 percent
- Dissolved oxygen: ± 10 percent if grater than 0.5 milligrams per liter
- Oxidation-reduction potential: ± 20 millivolts
- Turbidity: ± 10 percent if greater 5 nephelometric turbidity units

Upon parameter stabilization, groundwater samples were collected directly into laboratory-supplied containers. Each sample container was immediately labeled and placed in an iced cooler pending submittal to the analytical laboratory. Samples were handled and transported under standard Chain-of-Custody protocols to Friedman & Bruya, Inc. in Seattle, Washington. All samples were submitted for the following analyses:

- Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by U.S. Environmental Protection Agency (EPA) Method 8270E; and

- Naphthalenes by EPA Method 8270E.

GROUNDWATER MONITORING ANALYTICAL RESULTS

Groundwater monitoring analytical results indicated the following:

- cPAHs were not detected at concentrations exceeding the method detection limits (MDLs) in any of the four monitoring events; and
- Naphthalenes were not detected in any samples at concentrations exceeding the MDLs in any of the four monitoring events.

Analytical results for groundwater samples are described below and summarized in Table 2. Copies of the groundwater laboratory reports are included in Attachment A.

CONCLUSIONS

The findings of the groundwater monitoring discussed in this Report support the following conclusions:

- Four consecutive quarters of quarterly groundwater monitoring events show concentrations of naphthalene and cPAHs in groundwater to be less than MDLs at the Site.
- Based on analytical results, it is TRC's professional opinion that groundwater monitoring 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 content of this Report.

Sincerely,

Prepared by:
Ramsey Mauldin
Senior Environmental Scientist
rmauldin@trccompanies.com

Reviewed and approved by:
Betsy Wing
Senior Geologist
bwing@trccompanies.com

ENCLOSURES

Tables

Table 1 Groundwater Elevation Data
Table 2 Groundwater Monitoring Analytical Results

Figures

Figure 1 General Vicinity Map
Figure 2 Site Representation with Groundwater Monitoring Well Locations

Attachment

Attachment A Laboratory Analytical Results

Tables

Table 1
Groundwater Elevation Data
2022 Annual Groundwater Monitoring Report
Modera River Trail Property
15801 and 15945 Northeast 85th Street, Redmond, Washington

Well ID ID	Date	Measured Total Depth	Depth to Water	Casing Elevation[a]	Calculated Groundwater Elevation
MW-1	8/24/2021	14.82	9.75	32.42	22.67
	11/18/2021	14.81	5.23		27.19
	2/17/2022	14.82	8.59		23.83
	5/16/2022	14.81	7.99		24.43
MW-2	8/24/2021	16.6	9.55	32.59	23.04
	11/18/2021	16.59	5.00		27.59
	2/17/2022	16.59	8.52		24.07
	5/16/2022	16.59	7.89		24.70

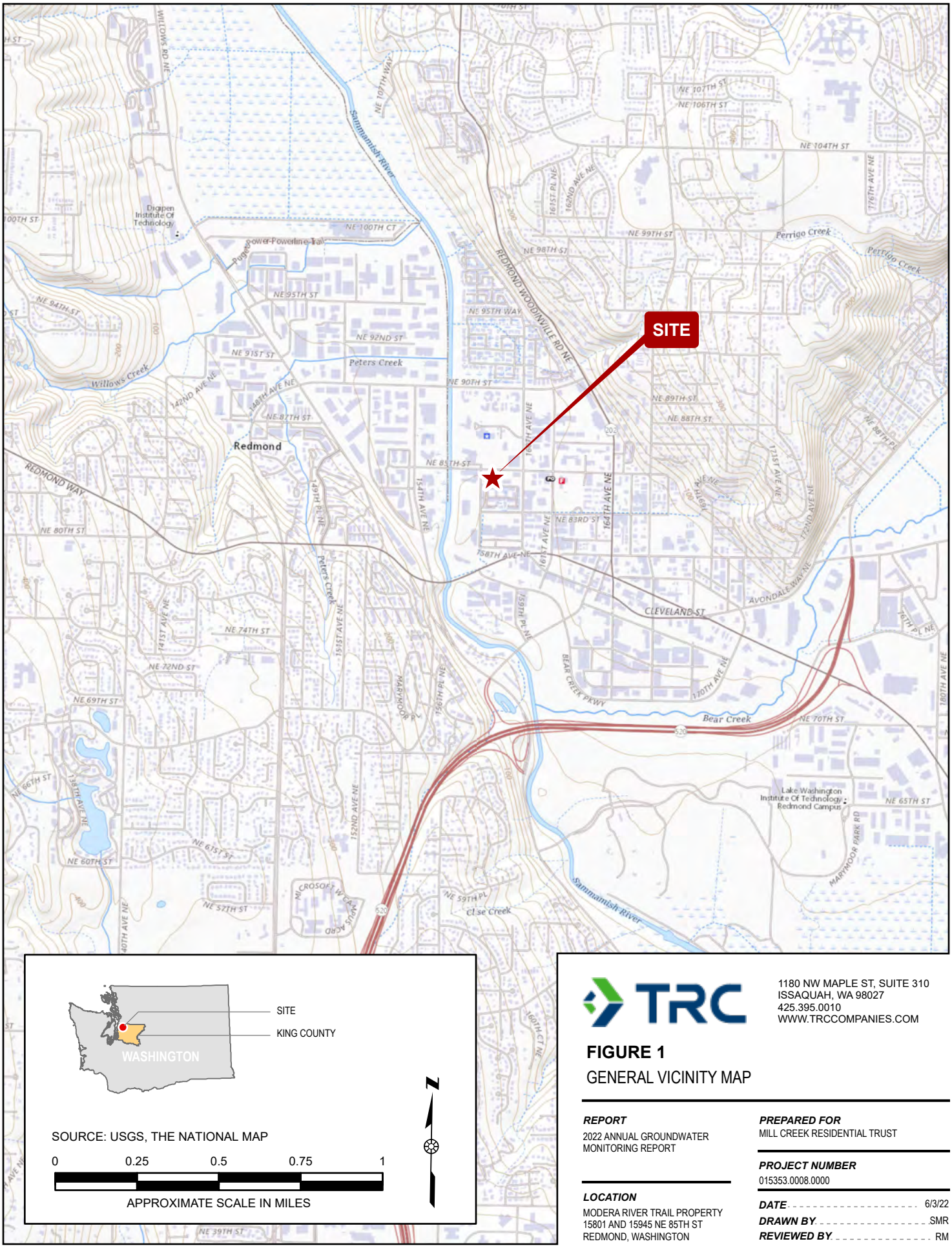
Notes:
All units in US survey feet.
a Wells surveyed by Pace on August 24, 2021, referenced to North American Vertical Datum of 1988 (NAVD88).

Table 2
Groundwater Monitoring Analytical Results
2022 Annual Groundwater Monitoring Report
Modera River Trail Property
15801 and 15945 Northeast 85th Street, Redmond, Washington

Sample ID	Sample Date	Semivolatile Organic Compounds[a]			Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)[a]							TEF-Adjusted Total cPAHs[b]
		Naph-thalene	1-Methyl-naph-thalene	2-Methyl-naph-thalene	Benzo(a) pyrene	Benz(a) anthra-cene	Benzo(b) fluor-anthene	Benzo(k) fluor-anthene	Chrysene	Dibenz(a,h) anthracene	Indeno (1,2,3-cd) pyrene	
MW-1	8/24/2021	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	ND
	11/18/2021	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	ND
	2/17/2022	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	ND
	5/16/2022	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	ND
MW-2	8/24/2021	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	ND
	11/18/2021	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	ND
	2/17/2022	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	ND
	5/16/2022	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	ND
MTCA Method A or B Groundwater Cleanup Level[c]		**160**	**1.5[d]**	**32[d]**	**See Cleanup Level for TEF-Adjusted Total cPAHs**							**0.1**

Notes:
All results presented in micrograms per liter (µg/L).
< Concentration less than laboratory method detection limit.
a Analyzed by EPA Method 8270E.
b Toxicity Equivalency Factors (TEFs) calculated under WAC 173-340-708(e) in accordance with Table 708-2 (in WAC 173-340-900).
c Model Toxics Control Act (MTCA) Method A Groundwater Cleanup Levels, Table 720-1, Washington Administrative Code (WAC) 173-340-900.
d MTCA Method B Groundwater Cleanup Levels from Cleanup Levels and Risk Calculations [CLARC] spreadsheet. Where cleanup levels based on carcinogenic and non-carcinogenic risk were available, the lower value was listed.
ND Result is less than the laboratory method detection limit.

Figures



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

FIGURE 1

GENERAL VICINITY MAP

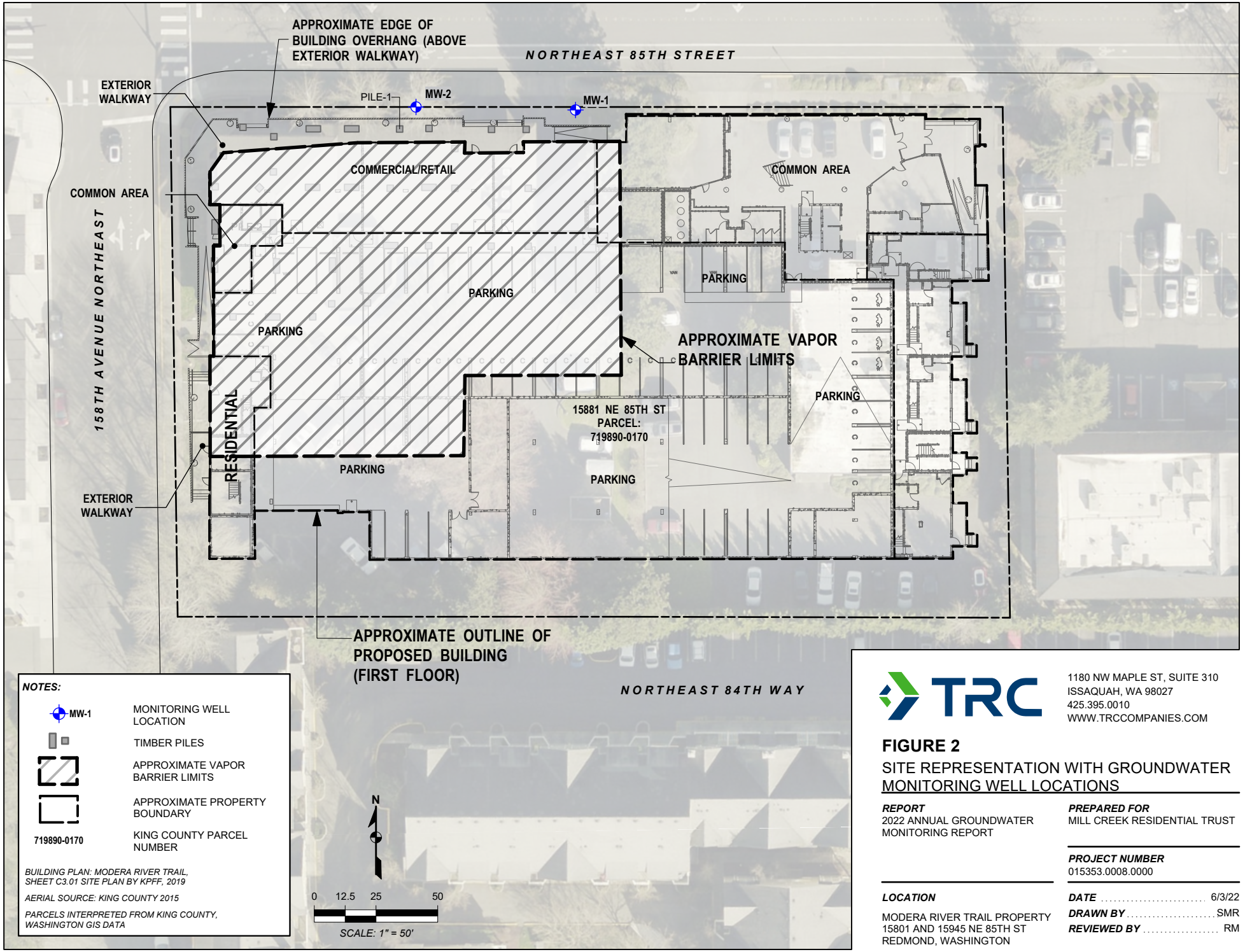
REPORT
2022 ANNUAL GROUNDWATER MONITORING REPORT

LOCATION
MODERA RIVER TRAIL PROPERTY
15801 AND 15945 NE 85TH ST
REDMOND, WASHINGTON

PREPARED FOR
MILL CREEK RESIDENTIAL TRUST

PROJECT NUMBER
015353.0008.0000

DATE 6/3/22
DRAWN BY SMR
REVIEWED BY RM



TRC

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

FIGURE 2

SITE REPRESENTATION WITH GROUNDWATER MONITORING WELL LOCATIONS

REPORT
2022 ANNUAL GROUNDWATER MONITORING REPORT

PREPARED FOR
MILL CREEK RESIDENTIAL TRUST

PROJECT NUMBER
015353.0008.0000

LOCATION
MODERA RIVER TRAIL PROPERTY
15801 AND 15945 NE 85TH ST
REDMOND, WASHINGTON

DATE 6/3/22
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.
Arina Podnozova, B.S.
Eric Young, B.S.

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

September 1, 2021

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

RE: 015353.8 MCRT Redmond, F&BI 108383

Dear Mr Mauldin:

Included are the results from the testing of material submitted on August 25, 2021 from the 015353.8 MCRT Redmond, F&BI 108383 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Cynthia Moon
TRC0901R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 25, 2021 by Friedman & Bruya, Inc. from the TRC Environmental 015353.8 MCRT Redmond, F&BI 108383 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	TRC Environmental
108383-01	MW-1
108383-02	MW-2

All quality control requirements were acceptable.

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-1	Client:	TRC Environmental
Date Received:	08/25/21	Project:	015353.8, F&BI 108383
Date Extracted:	08/27/21	Lab ID:	108383-01 1/2
Date Analyzed:	08/27/21	Data File:	082718.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	32	10	60
Phenol-d6	28	10	49
Nitrobenzene-d5	80	15	144
2-Fluorobiphenyl	77	25	128
2,4,6-Tribromophenol	68	10	142
Terphenyl-d14	90	41	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-2	Client:	TRC Environmental
Date Received:	08/25/21	Project:	015353.8, F&BI 108383
Date Extracted:	08/27/21	Lab ID:	108383-02 1/2
Date Analyzed:	08/27/21	Data File:	082719.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	31	10	60
Phenol-d6	26	10	49
Nitrobenzene-d5	77	15	144
2-Fluorobiphenyl	72	25	128
2,4,6-Tribromophenol	67	10	142
Terphenyl-d14	90	41	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	TRC Environmental
Date Received:	Not Applicable	Project:	015353.8, F&BI 108383
Date Extracted:	08/27/21	Lab ID:	01-2035 mb2 1/2
Date Analyzed:	08/27/21	Data File:	082708.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	27	10	60
Phenol-d6	15	10	49
Nitrobenzene-d5	88	15	144
2-Fluorobiphenyl	77	25	128
2,4,6-Tribromophenol	79	10	142
Terphenyl-d14	96	41	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04

Date of Report: 09/01/21
Date Received: 08/25/21
Project: 015353.8 MCRT Redmond, F&BI 108383

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample 1/0.5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	5	78	79	66-94	1
2-Methylnaphthalene	ug/L (ppb)	5	81	84	68-98	4
1-Methylnaphthalene	ug/L (ppb)	5	79	82	67-97	4
Benz(a)anthracene	ug/L (ppb)	5	88	89	70-130	1
Chrysene	ug/L (ppb)	5	89	88	70-130	1
Benzo(a)pyrene	ug/L (ppb)	5	89	90	70-130	1
Benzo(b)fluoranthene	ug/L (ppb)	5	91	94	62-130	3
Benzo(k)fluoranthene	ug/L (ppb)	5	89	90	70-130	1
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	99	92	70-130	7
Dibenz(a,h)anthracene	ug/L (ppb)	5	98	94	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. 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.

108383

SAMPLE CHAIN OF CUSTODY

ME 8/25/21

E03

Page # 1 of 1

Report To Ramsey Mauldin

Company TRC

Address 11430 NW Maple St Suite 310

City, State, ZIP Issaquah, WA

Phone 425-395-0010 Email rmauldin@trccompanies.com

SAMPLERS (*signature*) Ramsey Mauldin

PROJECT NAME: 015353.8 MCRT REDMOND

PO #:

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	cPAHs 8270	Naphthalenes 8270			Notes
MW-1	01	8-24-21	0925	WATER	1								X	X			
MW-2	02	↓	1000	↓	↓								X	X			

ANALYSES REQUESTED

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Ramsey Mauldin	Ramsey Mauldin	TRC	8-25-21	0630
Received by:	Michael Edith	F&B	8/25/21	0630
Relinquished by:				
Received by:				

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

December 1, 2021

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

RE: 015353 MCRT Redmond, F&BI 111392

Dear Mr Mauldin:

Included are the results from the testing of material submitted on November 19, 2021 from the 015353 MCRT Redmond, F&BI 111392 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Cynthia Moon
TRC1201R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 19, 2021 by Friedman & Bruya, Inc. from the TRC Environmental 015353 MCRT Redmond, F&BI 111392 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	TRC Environmental
111392-01	MW-1
111392-02	MW-2

All quality control requirements were acceptable.

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-1	Client:	TRC Environmental
Date Received:	11/19/21	Project:	015353 MCRT Redmond, F&BI 111392
Date Extracted:	11/23/21	Lab ID:	111392-01 1/2
Date Analyzed:	11/23/21	Data File:	112312.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	40	11	65
Phenol-d6	28	11	65
Nitrobenzene-d5	85	50	150
2-Fluorobiphenyl	83	44	108
2,4,6-Tribromophenol	97	10	140
Terphenyl-d14	92	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-2	Client:	TRC Environmental
Date Received:	11/19/21	Project:	015353 MCRT Redmond, F&BI 111392
Date Extracted:	11/23/21	Lab ID:	111392-02 1/2
Date Analyzed:	11/23/21	Data File:	112313.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	41	11	65
Phenol-d6	29	11	65
Nitrobenzene-d5	84	50	150
2-Fluorobiphenyl	85	44	108
2,4,6-Tribromophenol	97	10	140
Terphenyl-d14	95	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	TRC Environmental
Date Received:	Not Applicable	Project:	015353 MCRT Redmond, F&BI 111392
Date Extracted:	11/23/21	Lab ID:	01-2740 mb2
Date Analyzed:	11/23/21	Data File:	112311.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	24	11	65
Phenol-d6	14	11	65
Nitrobenzene-d5	84	50	150
2-Fluorobiphenyl	83	44	108
2,4,6-Tribromophenol	94	10	140
Terphenyl-d14	89	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02

Date of Report: 12/01/21
Date Received: 11/19/21
Project: 015353 MCRT Redmond, F&BI 111392

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample 1/0.25

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	5	78	78	62-90	0
2-Methylnaphthalene	ug/L (ppb)	5	79	78	64-93	1
1-Methylnaphthalene	ug/L (ppb)	5	78	76	64-93	3
Benz(a)anthracene	ug/L (ppb)	5	93	94	70-130	1
Chrysene	ug/L (ppb)	5	94	95	70-130	1
Benzo(a)pyrene	ug/L (ppb)	5	97	99	70-130	2
Benzo(b)fluoranthene	ug/L (ppb)	5	97	101	70-130	4
Benzo(k)fluoranthene	ug/L (ppb)	5	96	96	70-130	0
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	96	95	70-130	1
Dibenz(a,h)anthracene	ug/L (ppb)	5	95	94	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.

111392

SAMPLE CHAIN OF CUSTODY

ME 11-19-21 EQ3

Page # 1 of 1

Report To Ramsey Mauldin

Company TRC

Address 1180 NW Maple St, Suite 310

City, State, ZIP Issaquah, WA 98027

Phone (425) 395-0010 Email RMauldin@trccompanies.com cc: CMann@trccompanies.com

SAMPLERS (*signature*) NF

PROJECT NAME: 015353 MCRT Redmond

PO #

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

						ANALYSES REQUESTED											
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	cPAHs EPA 8270	PCBs EPA 8082	Naphthalenes EPA 8270D				Notes
MW-1	01	11/18/21	1119	H_2O	1						X		X				
MW-2	02	11/18/21	1224	H_2O	1						X		X				
													Samples received at 3 °C				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: NF	NATE DORFNER	TRC		
Received by: Uriel P Dukes III	URIEL P DUKES III	FED EX	11/19	1248
Relinquished by:				
Received by: Nhan Phan	Nhan Phan	FedEx	11/19/21	1400

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
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.

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

February 24, 2022

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

RE: 015353-MCRT Redmond, F&BI 202333

Dear Mr Mauldin:

Included are the results from the testing of material submitted on February 17, 2022 from the 015353-MCRT Redmond, F&BI 202333 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Cynthia Moon
TRC0224R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 17, 2022 by Friedman & Bruya, Inc. from the TRC Environmental 015353-MCRT Redmond, F&BI 202333 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	TRC Environmental
202333 -01	MW-1
202333 -02	MW-2

All quality control requirements were acceptable.

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-1	Client:	TRC Environmental
Date Received:	02/17/22	Project:	015353-MCRT Redmond, F&BI 202333
Date Extracted:	02/21/22	Lab ID:	202333-01 1/2
Date Analyzed:	02/21/22	Data File:	022119.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	42	11	65
Phenol-d6	28	11	65
Nitrobenzene-d5	89	50	150
2-Fluorobiphenyl	91	44	108
2,4,6-Tribromophenol	96	10	140
Terphenyl-d14	107	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-2	Client:	TRC Environmental
Date Received:	02/17/22	Project:	015353-MCRT Redmond, F&BI 202333
Date Extracted:	02/21/22	Lab ID:	202333-02 1/2
Date Analyzed:	02/21/22	Data File:	022120.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	45	11	65
Phenol-d6	29	11	65
Nitrobenzene-d5	93	50	150
2-Fluorobiphenyl	100	44	108
2,4,6-Tribromophenol	92	10	140
Terphenyl-d14	112	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	TRC Environmental
Date Received:	Not Applicable	Project:	015353-MCRT Redmond, F&BI 202333
Date Extracted:	02/21/22	Lab ID:	02-505 mb
Date Analyzed:	02/21/22	Data File:	022110.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	24	10	60
Phenol-d6	15	10	49
Nitrobenzene-d5	89	15	144
2-Fluorobiphenyl	89	25	128
2,4,6-Tribromophenol	86	10	142
Terphenyl-d14	113	41	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02

Date of Report: 02/24/22
Date Received: 02/17/22
Project: 015353-MCRT Redmond, F&BI 202333

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	5	88	95 vo	66-94	8
2-Methylnaphthalene	ug/L (ppb)	5	95	103 vo	68-98	8
1-Methylnaphthalene	ug/L (ppb)	5	95	102 vo	67-97	7
Benz(a)anthracene	ug/L (ppb)	5	98	103	70-130	5
Chrysene	ug/L (ppb)	5	101	105	70-130	4
Benzo(a)pyrene	ug/L (ppb)	5	106	110	70-130	4
Benzo(b)fluoranthene	ug/L (ppb)	5	102	106	62-130	4
Benzo(k)fluoranthene	ug/L (ppb)	5	108	114	70-130	5
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	107	108	70-130	1
Dibenz(a,h)anthracene	ug/L (ppb)	5	114	111	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. 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.

202333

SAMPLE CHAIN OF CUSTODY 02.17.22

D01

Report To Ramsey Mauldin

Company TRC

Address 1180 NW Maple St, Ste 310

City, State, ZIP Issaquah, WA

Phone 425-395-0010 Email RMauldin@TRCcompanies.com

SAMPLERS (*signature*) Austin York

PROJECT NAME: 015353 - MCRT Redmond

PO #:

REMARKS: Project specific RLs? - Yes / No

INVOICE TO:

Page # 1 of 1

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

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

						ANALYSES REQUESTED										
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	cPAHs (EPA 8270D)	Naphthalenes			Notes
MW-1	01	2-17-22	1045	Water	1								X	X			
MW-2	02	2-17-22	1210	Water	1								X	X			

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Austin York	Austin York	TRC	2-17-22	13 15
Received by: Tokara C.	Tokara Christensen	F+B	02.17.22	13:15
Relinquished by:				
Received by:		Samples received at 2 °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.

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

June 7, 2022

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

RE: MCRT Redmond 015353 PO 182754, F&BI 205266

Dear Mr Mauldin:

Included are the results from the testing of material submitted on May 16, 2022 from the MCRT Redmond 015353 PO 182754, F&BI 205266 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Cynthia Moon
TRC0607R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 16, 2022 by Friedman & Bruya, Inc. from the TRC Environmental MCRT Redmond 015353 PO 182754, F&BI 205266 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	TRC Environmental
205266-01	MW-1
205266-02	MW-2

All quality control requirements were acceptable.

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-1	Client:	TRC Environmental
Date Received:	05/16/22	Project:	MCRT Redmond 015353
Date Extracted:	05/18/22	Lab ID:	205266-01 1/2
Date Analyzed:	05/20/22	Data File:	052011.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	21	10	60
Phenol-d6	24	10	49
Nitrobenzene-d5	85	15	144
2-Fluorobiphenyl	81	25	128
2,4,6-Tribromophenol	56	10	142
Terphenyl-d14	117	41	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-2	Client:	TRC Environmental
Date Received:	05/16/22	Project:	MCRT Redmond 015353
Date Extracted:	05/18/22	Lab ID:	205266-02 1/2
Date Analyzed:	05/20/22	Data File:	052012.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	31	10	60
Phenol-d6	27	10	49
Nitrobenzene-d5	91	15	144
2-Fluorobiphenyl	93	25	128
2,4,6-Tribromophenol	75	10	142
Terphenyl-d14	116	41	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	TRC Environmental
Date Received:	Not Applicable	Project:	MCRT Redmond 015353
Date Extracted:	05/18/22	Lab ID:	02-1245 mb2
Date Analyzed:	05/20/22	Data File:	052006.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	19	10	60
Phenol-d6	14	10	49
Nitrobenzene-d5	92	15	144
2-Fluorobiphenyl	93	25	128
2,4,6-Tribromophenol	80	10	142
Terphenyl-d14	114	41	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02

Date of Report: 06/07/22
Date Received: 05/16/22
Project: MCRT Redmond 015353 PO 182754, F&BI 205266

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample 1/0.5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	5	77	83	60-97	7
2-Methylnaphthalene	ug/L (ppb)	5	88	93	63-103	6
1-Methylnaphthalene	ug/L (ppb)	5	86	91	64-101	6
Benz(a)anthracene	ug/L (ppb)	5	98	103	70-130	5
Chrysene	ug/L (ppb)	5	96	102	70-130	6
Benzo(a)pyrene	ug/L (ppb)	5	102	104	70-130	2
Benzo(b)fluoranthene	ug/L (ppb)	5	101	103	62-130	2
Benzo(k)fluoranthene	ug/L (ppb)	5	97	100	70-130	3
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	120	115	70-130	4
Dibenz(a,h)anthracene	ug/L (ppb)	5	122	111	70-130	9

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

205266 ME 05-16-22 E03

Page # 1 of 1

Report To Ramsey Mauldin
Company TRC
Address 1180 NW Maple St, Ste 310
City, State, ZIP Issaquah, WA
Phone 425-395-0010 Email RMauldin@TRCcompanies.com

SAMPLERS (*signature*) Austin York

PROJECT NAME: MCRT Redmond 015353
PO #: ~~015353~~ 182754

REMARKS
Project specific RLs? - Yes / No

INVOICE TO: per RM 5/17/22

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	cPAHs GRA 8270D	Naphthalenes			Notes
						ANALYSES REQUESTED											
MW-1	01	5-16-22	~~08~~ 0923	water	1								X	X			
MW-2	02	5-16-22	1003	water	1								X	X			
														Samples received at 4 °C			

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Austin York	Austin York	TRC	5-16-22	1130
Received by:	NINH	FBI	5-16-22	1400
Relinquished by:				
Received by:				

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

Attachment E
Ecology Concurrence with Groundwater Compliance

From: Song, Jing (ECY)
To: Mauldin, Ramsey
Cc: Koltes, Eric; Steve Yoon; Ken Lederman; Warfel, Michael (ECY)
Subject: [EXTERNAL] RE: GW Report: Modera River Trail | 015353.8
Date: Monday, August 22, 2022 8:15:12 AM
Attachments: image002.png

Ramsay,

Thank you for submitting the *2022 Groundwater Monitoring Report*. Ecology concurs that the groundwater is in compliance with MTCA. No more groundwater monitoring is needed.

Thank you,

Jing

From: Mauldin, Ramsey <RMauldin@trccompanies.com>
Sent: Friday, August 19, 2022 8:35 AM
To: Song, Jing (ECY) <JISO461@ECY.WA.GOV>
Cc: Koltes, Eric <EKoltes@trccompanies.com>; Steve Yoon <syoon@mcrtrust.com>; Ken Lederman <ken@mhseattle.com>; Warfel, Michael (ECY) <MWAR461@ECY.WA.GOV>; Bardy, Louise (ECY) <LBAR461@ECY.WA.GOV>
Subject: GW Report: Modera River Trail | 015353.8

Hi Jing,

I've attached the *2022 Groundwater Monitoring Report* (Report) for the Modera River Trail Site (Site). We have completed four quarters of groundwater monitoring as documented in the attached Report. The results indicate no detectable concentrations of naphthalenes or carcinogenic polycyclic aromatic hydrocarbons greater than method detection limits for all four events.

Based on the analytical results discussed in the Report, it is our opinion that groundwater monitoring is no longer necessary or warranted at the Site. Please review, let us know if you have any questions, and/or confirm your agreement with this opinion.

Thank you for your time and help,

Ramsey Mauldin
Senior Environmental Scientist
Environmental Engineering, Construction, and Remediation

TRC

1180 NW Maple Street, Suite 310, Issaquah, WA 98027
T 425.395.0022 | **C** 206.880.8050 | rmauldin@trccompanies.com
LinkedIn | Twitter | Blog | TRCcompanies.com

Attachment F
Indoor Air Monitoring Report – August 2022, dated September 1, 2022

1180 NW Maple St., Suite 310
Issaquah, WA 98027
T 425.395.0010
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 85th 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 85th 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 µg/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 µg/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 µg/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

Reviewed and approved by:
Eric Koltes, L.G.
Principal Geologist
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[a]
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)[b]		**0.1015**
		IA-2	2/19/2022	**0.15**
		IA-2 (adjusted)[b]		**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)[b]		**0.0655**
		IA-2	3/23/2022	**0.094 j**
		IA-2 (adjusted)[b]		**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)[b]		**0.0435**
		IA-2	8/3/2022	<0.051 j
		IA-2 (adjusted)[b]		<0.051 j
Indoor Air Cleanup Level[c]				**0.074**

Notes:

All results presented in micrograms per cubic meter (µg/m3).

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 results exceed the cleanup level.

< Result is less than the laboratory method detection limit.

a Analyzed by EPA Method TO-15.

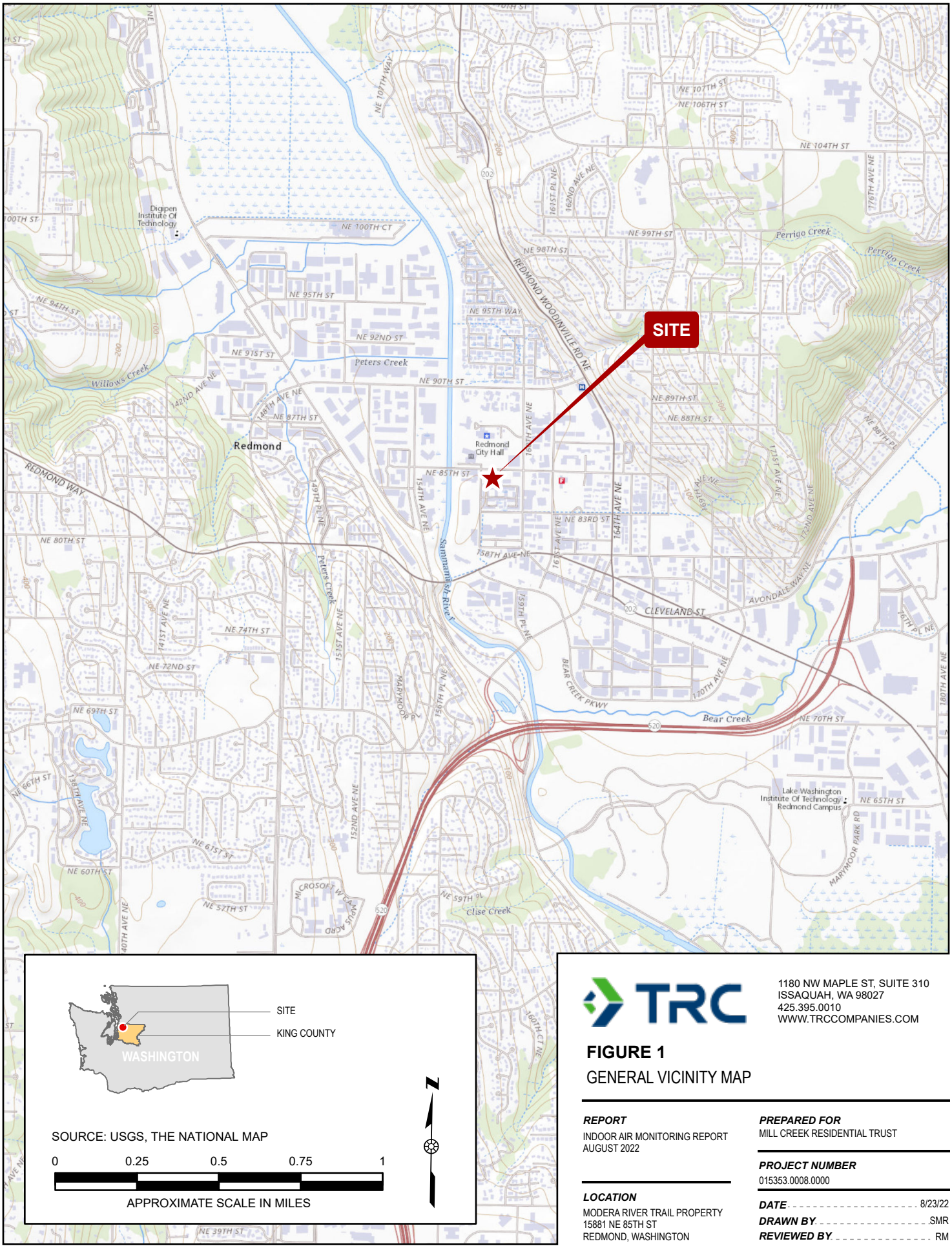
b Adjusted indoor air value calculated by subtracting background from indoor air results.

c 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



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

FIGURE 1

GENERAL VICINITY MAP

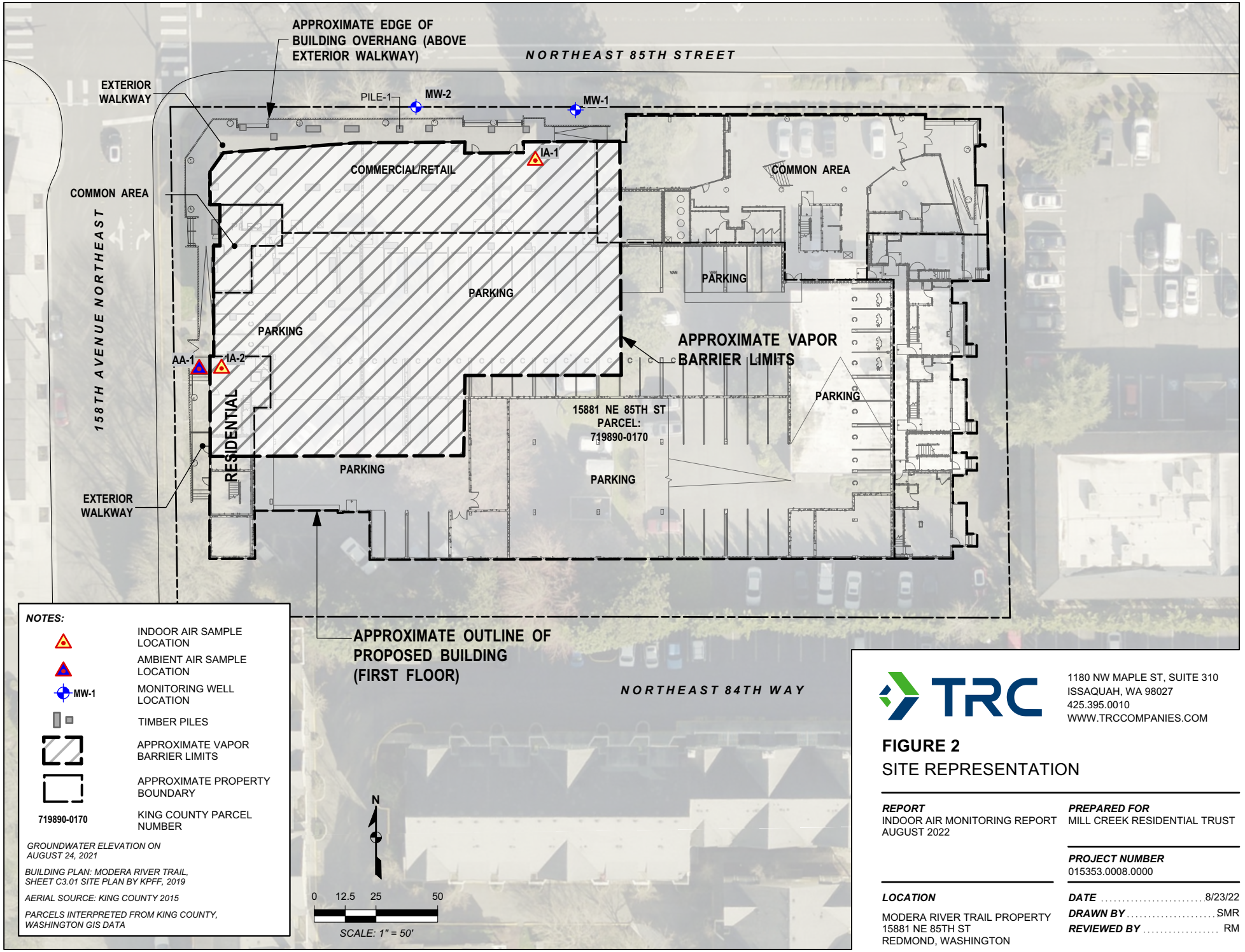
REPORT
INDOOR AIR MONITORING REPORT
AUGUST 2022

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

PREPARED FOR
MILL CREEK RESIDENTIAL TRUST

PROJECT NUMBER
015353.0008.0000

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



TRC

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

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.

Laboratory ID	TRC Environmental
208071-01	IA-1
208071-02	IA-2
208071-03	AA-1

All quality control requirements were acceptable.

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

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

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

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

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

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

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

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

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

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

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

Compounds:	Concentration ug/m3	ppbv
Naphthalene	<0.043 j	<0.0082 j

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

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

	Concentration	
Compounds:	ug/m3	ppbv
Naphthalene	<0.043 j	<0.0082 j

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^3	71	105	70-130

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

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

208071 Report To Ramsey Mauldin

Company TRC

Address 1180 NW Maple St Ste 310

City, State, ZIP Issaquah, WA 98027

Phone 425-395-0010 Email rmauldin@trccompanies.com

SAMPLERS (*signature*) 8/5/22

PROJECT NAME & ADDRESS: MCRT Redmond 015353.48

PO # 184157

NOTES: call Ramsey to discuss rush times for TO15

INVOICE TO

Page # 1 of 1

TURNAROUND TIME
- X Standard — RM 8/5
- X RUSH 5-DAY per RM 8/5/22

Rush charges authorized by: ME

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	TO15 Naphthalene	Notes
IA-1	01	37215	07870	(IA) / SG	8-3-22	>30	1622	5	1622						X	Can ID# 37214
IA-2	02	23227	07848	(IA) / SG	"	29.5	1631	4.5	1631						X	
AA-1	03	35331	05349	(IA) / SG	"	29.5	1634	5.5	1634						X	sample labeled AA-3
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Ramsey Mauldin	TRC	8-5-22	0827
Received by:	S. Osborn	FRB, Inc	8/5/22	08:27
Relinquished by:		Samples received at 17°C		
Received by:				

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

Attachment G
Ecology Concurrence with Indoor Air Compliance

From: Song, Jing (ECY)
To: Mauldin, Ramsey
Cc: Koltes, Eric; Steve Yoon; Ken Lederman; Warfel, Michael (ECY)
Subject: [EXTERNAL] RE: IA August Report: Modera River Trail | 015353.8
Date: Tuesday, September 6, 2022 7:41:38 AM
Attachments: image002.png

Hi Ramsey,

Thank you for submitting the Indoor Air Monitoring Report. Ecology concurs that no additional indoor air monitoring is needed at this site.

Jing Song, LG, LHG

Voluntary Cleanup Program Site Manager | Toxics Cleanup Program | WA Department of Ecology, Northwest Region
15700 Dayton Ave N, Shoreline, WA 98133
Cell: (425) 229-2565 | **Email:** jing.song@ecy.wa.gov

From: Mauldin, Ramsey <RMauldin@trccompanies.com>
Sent: Friday, September 2, 2022 7:38 AM
To: Song, Jing (ECY) <JISO461@ECY.WA.GOV>
Cc: Koltes, Eric <EKoltes@trccompanies.com>; Steve Yoon <syoon@mcrtrust.com>; Ken Lederman <ken@mhseattle.com>; Warfel, Michael (ECY) <MWAR461@ECY.WA.GOV>; Bardy, Louise (ECY) <LBAR461@ECY.WA.GOV>
Subject: IA August Report: Modera River Trail | 015353.8

Hi Jing,

Attached is the *Indoor Air Monitoring Report – August 2022* (Report) for the Modera River Trail Site (Site). The Report documents a 24-hour indoor air sampling event conducted between August 3 and 4 of 2022. The results indicate no concentrations of naphthalene greater than the method detection limit in indoor air.

I've also attached the requested chromatograms for the March 2022 sampling event. The chromatograms for all three samples include the chemist's markup for naphthalene at 23.88 minutes. The March sampling event is discussed in the previously submitted *Indoor Air Monitoring Report*, dated June 1, 2022. Please let us know if you need additional details for that event and our associated indoor air adjustment calculations.

Based on the analytical results of indoor air sampling conducted at the Site, it is our opinion that indoor air monitoring is no longer necessary or warranted at the Site. Please review, let us know of any questions, and/or confirm your agreement with this opinion.

Thanks for your time,

Ramsey Mauldin
Senior Environmental Scientist
Environmental Engineering, Construction, and Remediation

1180 NW Maple Street, Suite 310, Issaquah, WA 98027
T 425.395.0022 | **C** 206.880.8050 | rmauldin@trccompanies.com
LinkedIn | Twitter | Blog | TRCcompanies.com