October 16, 2023

Transmitted via email to: jusc461@ECY.WA.GOV

Washington State Department of Ecology
Northwest Regional Office
15700 Dayton Avenue N
PO Box 330316
Shoreline, WA 98133-9716

Attn: Ms. Julia Schwarz

Re: Third Quarter 2023 Progress Report
North Boeing Field/Georgetown Steam Plant (NBF/GTSP) Site
Agreed Order No. DE 5685

Dear Ms. Schwarz:

As required by Section VII of the First Amendment to the above-referenced Agreed Order (Order), Landau Associates, Inc. (Landau) is providing this progress report to the Washington State Department of Ecology (Ecology) on behalf of The Boeing Company (Boeing) and the City of Seattle (City). This report covers the third quarter (July, August, September) of 2023 and includes the information required by the Order, and information required by Ecology's November 9, 2016 letter re: Change in Progress Report Schedule and Content (Ecology 2016).

Meetings and Correspondence with Ecology

Significant meetings and correspondence with Ecology during Third Quarter 2023 are summarized below:

Meeting/ Correspondence Date	Topic
August 24–25, 2023	The City and Boeing transmitted a letter via email to Ecology formally requesting an extension of the due date for the Draft Remedial Investigation (RI) Report from August 31, 2023 to September 29, 2023. Ecology approved the request on August 25, 2023 with the stipulation that the internal, working copy of the draft RI Report be submitted to Ecology. This file was transmitted to Ecology as requested via email on August 25, 2023.
September 29, 2023	The Draft RI Report was electronically submitted to Ecology.

RI Activities and Data Collected During Third Quarter 2023

- During Third Quarter 2023, Boeing and the City prepared the NBF/GTSP Draft RI Report and submitted the document to Ecology on September 29, 2023.
- Semiannual groundwater monitoring was completed at NBF in August 2023. Semiannual groundwater monitoring consists of collection of groundwater samples for laboratory analysis at selected wells in the 3-360 and 3-800 Areas; groundwater elevations are also measured in the 3-360 Area for preparation of elevation contours as discussed below. Groundwater monitoring locations in the 3-360 and 3-800 Areas are shown on Figure 1. Groundwater data plots for select NBF wells are provided in Attachment 1.

  Water levels in the 3-360 Area were measured in August. Depth to water measurements and calculated elevations are presented in Table 1. Groundwater contours are shown on Figure 2. To further evaluate groundwater elevation changes in the 3-360 Area, groundwater elevation measurements at five wells in the 3-360 Area were compared to previous measurements; the comparative analysis is presented in Table 2. The change in water levels between March 2023 and August 2023 presented on Table 2 is consistent with expected groundwater elevation changes from a wet to dry season.

Offsite Investigation Activities Performed During Third Quarter 2023

- None this period.

Data Packages for Which Data Validation Was Completed During Third Quarter 2023

Data validation was completed on groundwater monitoring data for the package listed below:

- 23H0225.

Validated semiannual groundwater data is provided in Table 3. Electronic copies of the complete data packages are provided in Attachment 2.

Other Non-RI Work Performed During Third Quarter 2023

- Seattle City Light (SCL), Seattle Parks and Recreation (SPR), and Seattle Department of Transportation (SDOT; collectively "the City") are teaming to develop an off-leash pet area and bicycle/pedestrian trail in the Georgetown and South Park communities (Proposed Park Site). During Third Quarter 2023, the City submitted the final supplemental soil investigation technical memorandum with updated excavation depths to Ecology on July 11, 2023 (Integral 2023). Final excavation depths will be incorporated into the construction documents. The Interim Action Work Plan (Integral 2022)) was finalized on July 11, 2023 with the submittal of the Supplemental Design Memorandum (Integral 2023). Project permitting and bid preparation are underway. The project is expected to be released for bid in Fourth Quarter 2023. Construction is anticipated to start in early 2024 and will likely last 4 to 6 months.

Deviations from Approved Work Plan

- None this period.

Proposed Schedule Revisions and Issues That Have Potential to Impact the Project Schedule or Objectives

- None this period.

Anticipated Fourth Quarter 2023 Activities

- Boeing plans to conduct a round of bioremediation injections in the 3-360 Area and 3-800 Area in October 2023, consistent with bioremediation injections previously completed in these areas. This work will be performed by CALIBRE Systems.
- The potentially liable parties will continue to work with Ecology on next steps for responding to Ecology's September 15, 2022 letter regarding PFAS.

If you have any questions regarding this progress report or other topics, please contact Molly Taptich (206-883-7494), Allison Crowley (206-684-3167), or Colette Gaona (503-542-1083).

LANDAU ASSOCIATES, INC.

Colette M. Gaona
Project Manager

CMG/ljl
[P:\025\082\.915 RI-FS\M\PROGRESS REPORTS - QUARTERLY\2023\3Q23\BOEING_NBF-GTSP_LANDAU_3Q23_PROG RPT.DOCX]

cc: Molly Taptich, The Boeing Company
Joseph Flaherty, The Boeing Company
Allison Crowley, City of Seattle
Peter Dumaliang, King County

Attachments

Figure 1. NBF/GTSP RI Groundwater Monitoring Well Locations
Figure 2. NBF/GTSP RI 3-360 Area Groundwater Elevation Contours, August 8, 2023
Table 1. August 2023 3-360 Area Groundwater Elevations
Table 2. 3-360 Area Quarterly Water Level Monitoring
Table 3. Semiannual Groundwater Monitoring Data
Attachment 1. Semiannual Groundwater Data Plots
Attachment 2. Laboratory Data Packages

References

Ecology. 2016. Letter: Change in Progress Report Schedule and Content, North Boeing Field/Georgetown Steam Plant Agreed Order No. DE 5685. From Mark Adams, Cleanup Project Manager, Toxics Cleanup Program, Washington State Department of Ecology, to Carl Bach, The Boeing Company, Allison Crowley, Seattle City Light, and Peter Dumaliang, King County International Airport. November 9.

Integral. 2022. Georgetown Flume Off-Leash Area and Trail Interim Action Work Plan. Integral Consulting Inc. September 30.

Integral. 2023. Georgetown Flume Off-Leash Area and Trail Supplemental Design Memorandum. Integral Consulting Inc. June 16.

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Legend

- Groundwater Monitoring Well
- Groundwater Monitoring Well (Decommissioned)
- Site Boundary
- City of Seattle Proposed Off-Leash Pet Area and Bicycle/Pedestrian Trail
- NGW104 Semiannual Groundwater Monitoring Well
- Quarterly Groundwater Elevation Monitoring Locations

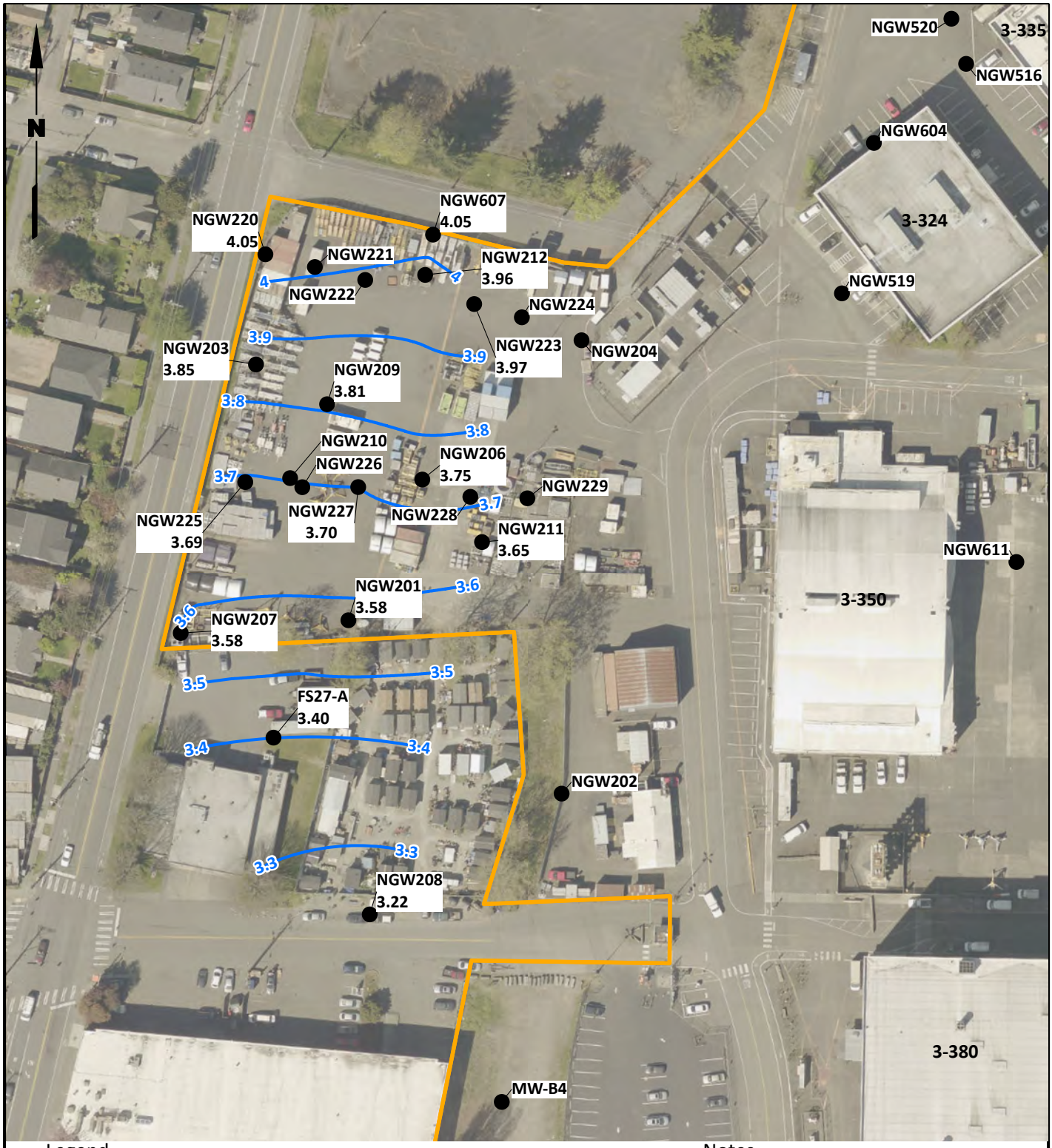
Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Source: King County GIS.

LANDAU ASSOCIATES

NBF/GTSP RI Seattle, Washington	**NBF/GTSP RI Groundwater Monitoring Well Locations**	Figure 1



Legend

- Groundwater Monitoring Well
- Site Boundary
- **NGW201** Well ID
- **3.30** Groundwater Elevation (ft)

0 100 200

Scale in Feet

Notes

1. Groundwater elevations in NGVD29 datum, ft, measured on August 8, 2023.
2. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Source: King County GIS.

G:\Projects\025\082\923\123\GWMonitoring\GWMonitoring.aprx 9/29/2023

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NBF/GTSP RI Seattle, Washington	**NBF/GTSP RI 3-360 Area Groundwater Elevation Contours August 8, 2023**	Figure 2

Table 1
August 2023 3-360 Area Groundwater Elevations
NBF/GTSP Remedial Investigation
Seattle, Washington

	Date	8/8/2023	
Location Name	**TOC Elevation (ft) (a)**	**DTW (ft)**	**GW Elevation (ft)**
FS27-A	13.94	10.54	3.40
NGW201	12.57	8.99	3.58
NGW203	13.56	9.71	3.85
NGW206	12.28	8.53	3.75
NGW207	12.80	9.22	3.58
NGW208	10.83	7.61	3.22
NGW209	13.3	9.49	3.81
NGW211	10.84	7.19	3.65
NGW212	12.52	8.56	3.96
NGW220	13.32	9.27	4.05
NGW223	11.73	7.76	3.97
NGW225	12.26	8.57	3.69
NGW227	12.61	8.91	3.70
NGW607	12.67	8.62	4.05

Abbreviations and Acronyms:

DTW = depth to water

ft = feet

NM = not measured

TOC = top of casing

Notes:

(a) Vertical Datum: NGVD29, US feet.
To convert NGVD29 elevations to NAV88 elevations add 3.59 feet.

Table 2
3-360 Area Quarterly Water Level Monitoring
NBF/GTSP Remedial Investigation
Seattle, Washington

	NGW203		NGW220		NGW223		NGW225		NGW607	
TOC Elevation (a, b)	13.56		13.32		11.73		12.26		12.67	
	DTW (ft)	Elevation (ft)	DTW (ft)	Elevation (ft)	DTW (ft)	Elevation (ft)	DTW (ft)	Elevation (ft)	DTW (ft)	Elevation (ft)
3/4/2020	8.79	4.77	8.30	5.02	6.95	4.78	7.47	4.79	7.64	5.03
8/11/2020	10.00	3.56	9.53	3.79	8.06	3.67	9.55	2.71	8.80	3.87
11/9/2020	10.06	3.50	9.63	3.69	8.17	3.56	9.03	3.23	9.04	3.63
3/24/2021	8.64	4.92	8.14	5.18	6.75	4.98	7.55	4.71	7.24	5.43
6/23/2021	9.68	3.88	9.27	4.05	7.91	3.82	7.55	4.71	5.86	6.81
8/17/2021	10.01	3.55	9.53	3.79	8.06	3.67	8.83	3.43	8.92	3.75
12/6/2021	8.93	4.63	8.44	4.88	7.04	4.69	7.81	4.45	7.79	4.88
2/16/2022	8.79	4.77	8.18	5.14	6.87	4.86	7.29	4.97	7.41	5.26
6/17/2022	9.03	4.53	8.56	4.76	7.14	4.59	7.92	4.34	7.51	5.16
8/8/2022	9.62	3.94	9.14	4.18	7.70	4.03	8.60	3.66	8.53	4.14
3/8/2023	8.80	4.76	8.34	4.98	6.88	4.85	7.69	4.57	7.59	5.08
8/8/2023	9.71	3.85	9.27	4.05	7.76	3.97	8.57	3.69	8.62	4.05
Delta (c)	-0.91		-0.93		-0.88		-0.88		-1.03	

Abbreviations and Acronyms:

DTW = depth to water

ft = feet

TOC = top of casing

Notes:

(a) Vertical Datum: NGVD29, US feet.

(b) To convert NGVD29 elevations to NAV88 elevations add 3.59 feet.

(c) Delta is presented as the difference in feet between the two most recent quarters of water level measurements.

Table 3
Semiannual Groundwater Monitoring Data
NBF/GTSP Remedial Investigation
Seattle, Washington

	Area, Sample Location, Sample Date, Sample Type, Laboratory SDG														
	3-360 Building Area											3-800 Building Area			
	FS27-A	NGW201	NGW203	NGW206	NGW207	NGW208	NGW211	NGW212	NGW220	NGW607	NGW607	NGW301	NGW307	NGW308	NGW309
	8/8/2023	8/8/2023	8/8/2023	8/8/2023	8/8/2023	8/8/2023	8/8/2023	8/8/2023	8/8/2023	8/8/2023	8/8/2023	8/8/2023	8/8/2023	8/8/2023	8/8/2023
	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Analyte	23H0225	23H0225	23H0225	23H0225	23H0225	23H0225	23H0225	23H0225	23H0225	23H0225	23H0225	23H0225	23H0225	23H0225	23H0225
VOCs (µg/L; SW-846 8260D)															
cis-1,2-Dichloroethene	**6.87**	**0.44**	**14.3**	**1.74**	0.20 U	**6.74**	**2.24**	**3.15**	**12.7**	**5.94**	**5.75**	**1.70**	0.20 U	**0.33**	0.20 U
Tetrachloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	**4.82**	**0.20**	**3.64**	0.20 U
Trichloroethene	**2.74**	0.20 U	**0.43**	0.20 U	**0.46**	**0.35**	0.20 U	0.20 U	**0.86**	**0.92**	**0.84**	**1.72**	0.20 U	**0.32**	0.20 U
Vinyl Chloride	0.20 U	**22.4**	**8.61**	**15.8**	0.20 U	**0.48**	**7.22**	**5.43**	**3.66**	**2.02**	**1.82**	0.20 U	0.20 U	0.20 U	0.20 U
General Chemistry (mg/L; SM 5310B)															
Total Organic Carbon	**3.74**	**6.05**	**47.57**	**7.23**	**17.76**	**10.69**	**9.27**	**11.31**	**92.42**	**391.1**	**417.5**	**3.20**	**27.13**	**13.50**	**16.43**

Notes:

Bold text indicates detected analyte.

U = The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.

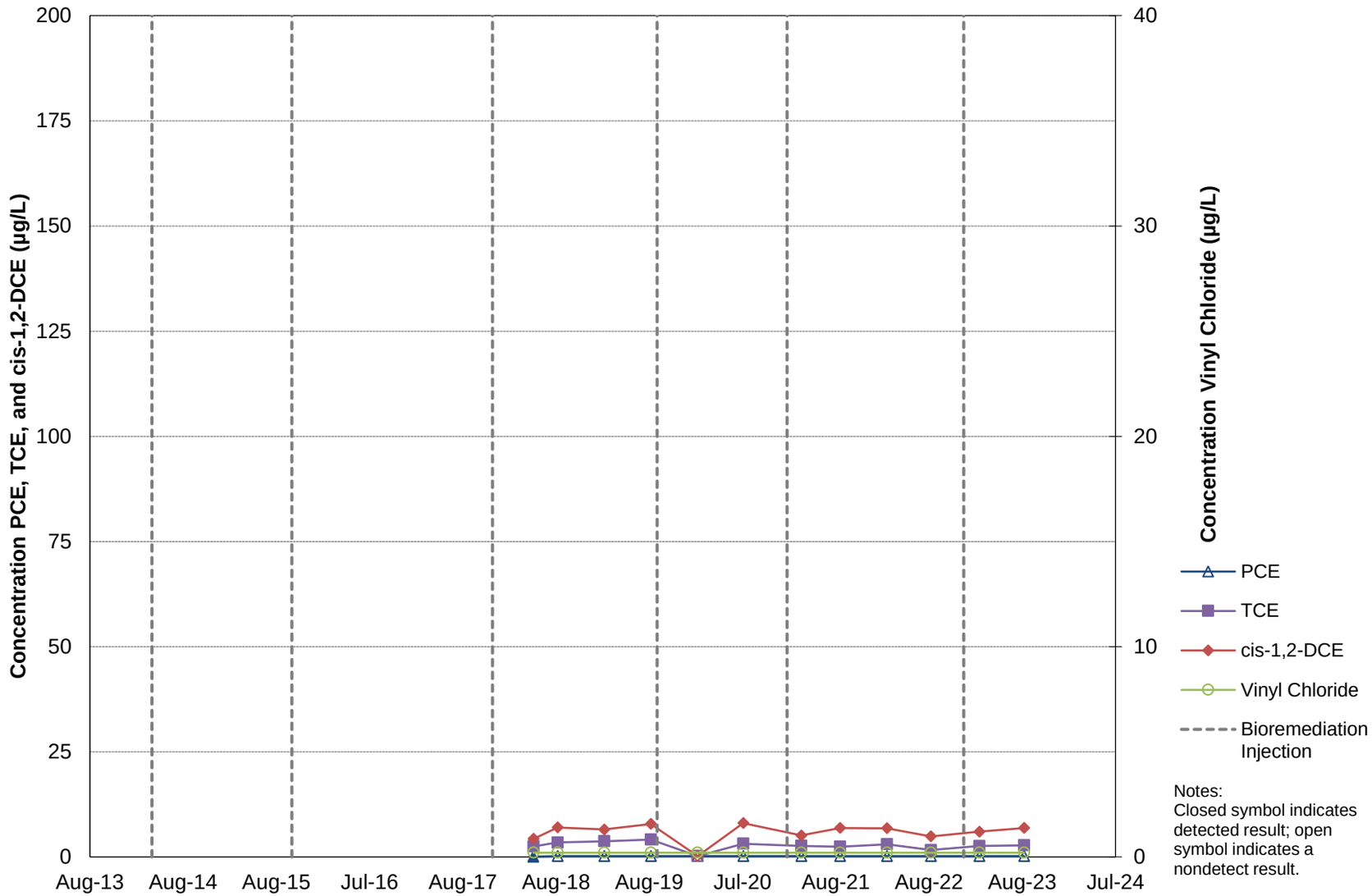
Abbreviations and Acronyms:

µg/L = micrograms per liter
FD = field duplicate
mg/L = milligrams per liter
N = primary sample
SDG = sample delivery group
VOCs = volatile organic compounds

ATTACHMENT 1

Semiannual Groundwater Data Plots

P:\025\082\.915 RI-FS\M\Progress Reports - Quarterly\2023\3Q23\Attachments\Attach 1_NBF Plots 3Q23



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North Boeing Field
Seattle, Washington

Area 3-360 FS27A Time Series

Figure
1-1

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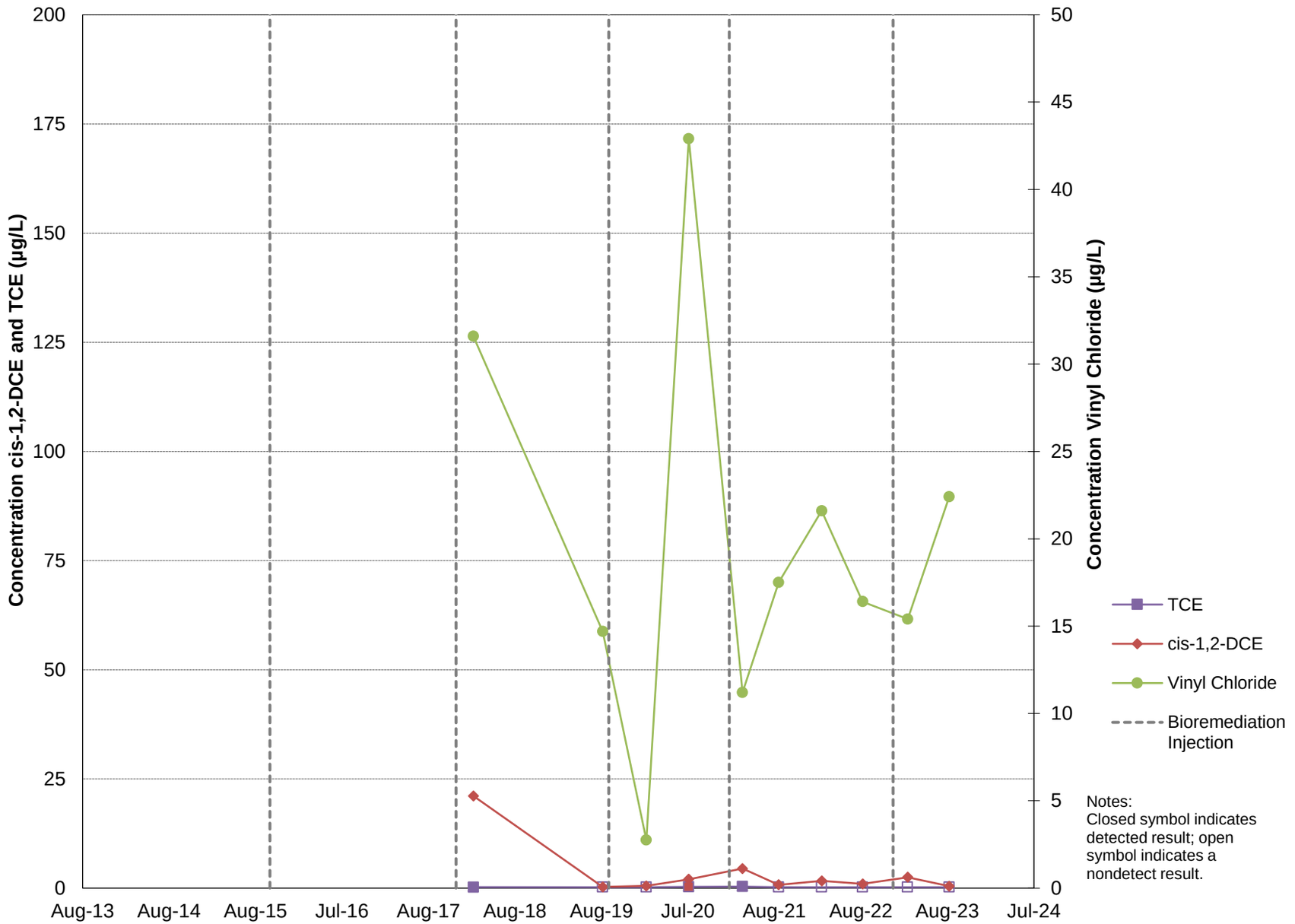

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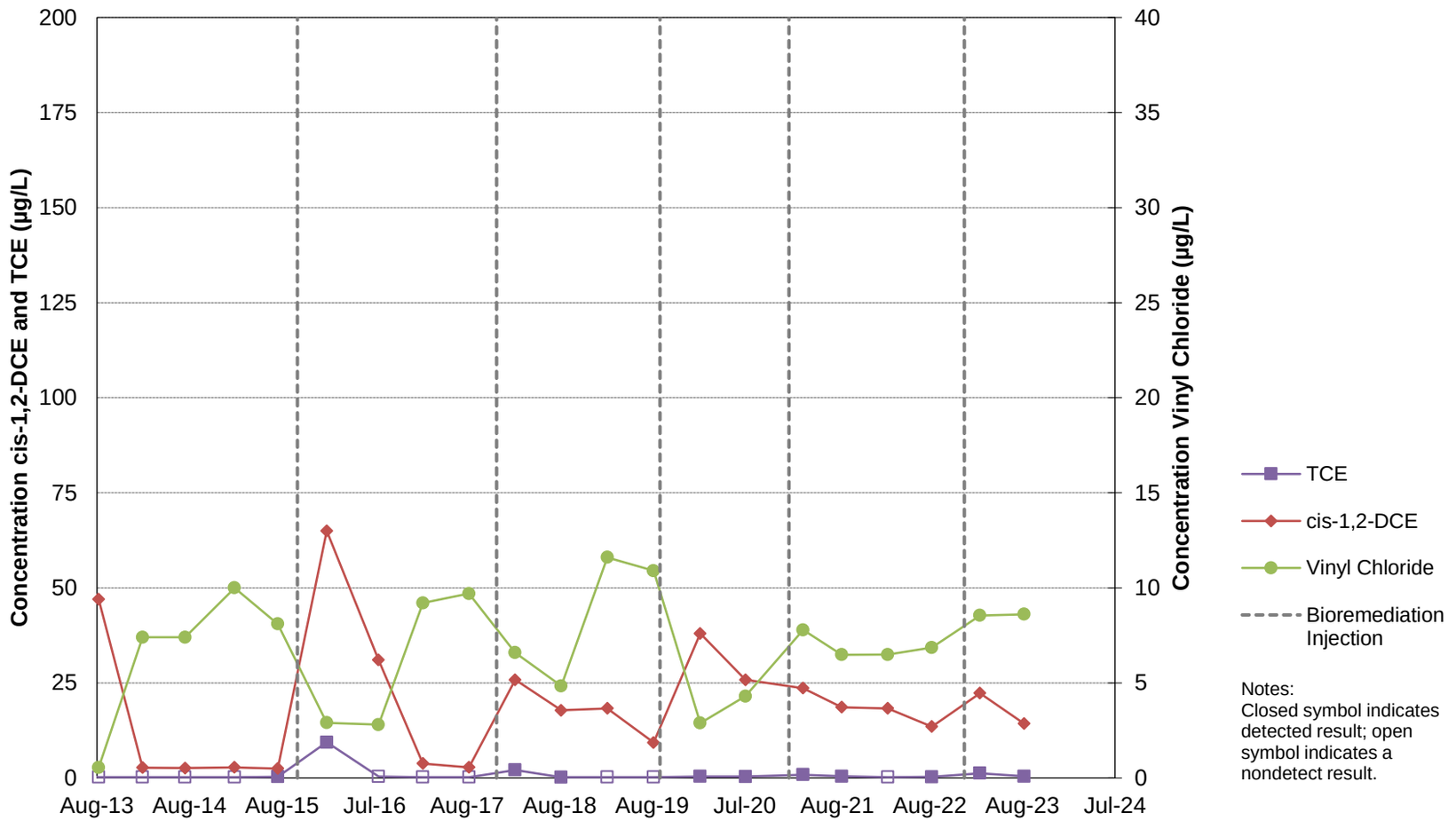
North Boeing Field
Seattle, Washington

Area 3-360 NGW201 Time Series

Figure
1-2

P:\025\082\.915 RI-FS\M\Progress Reports - Quarterly\2023\3Q23\Attachments\Attach 1_NBF Plots 3Q23



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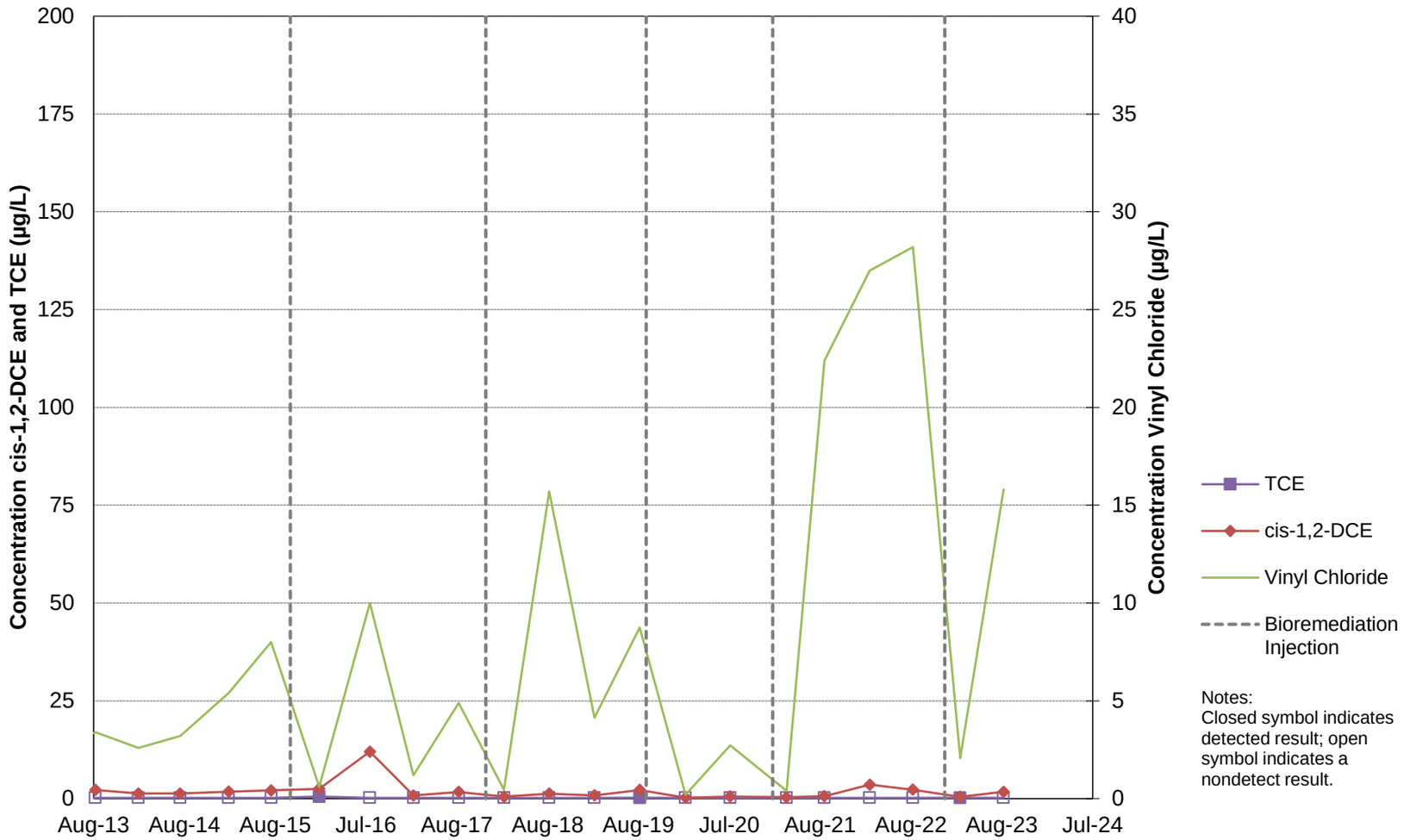
North Boeing Field
Seattle, Washington

Area 3-360 NGW203 Time Series

Figure
1-3

P:\025\082\.915 RI-FS\M\Progress Reports - Quarterly\2023\3Q23\Attachments\Attach 1_NBF Plots 3Q23



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North Boeing Field
Seattle, Washington

Area 3-360 NGW206 Time Series

Figure
1-4

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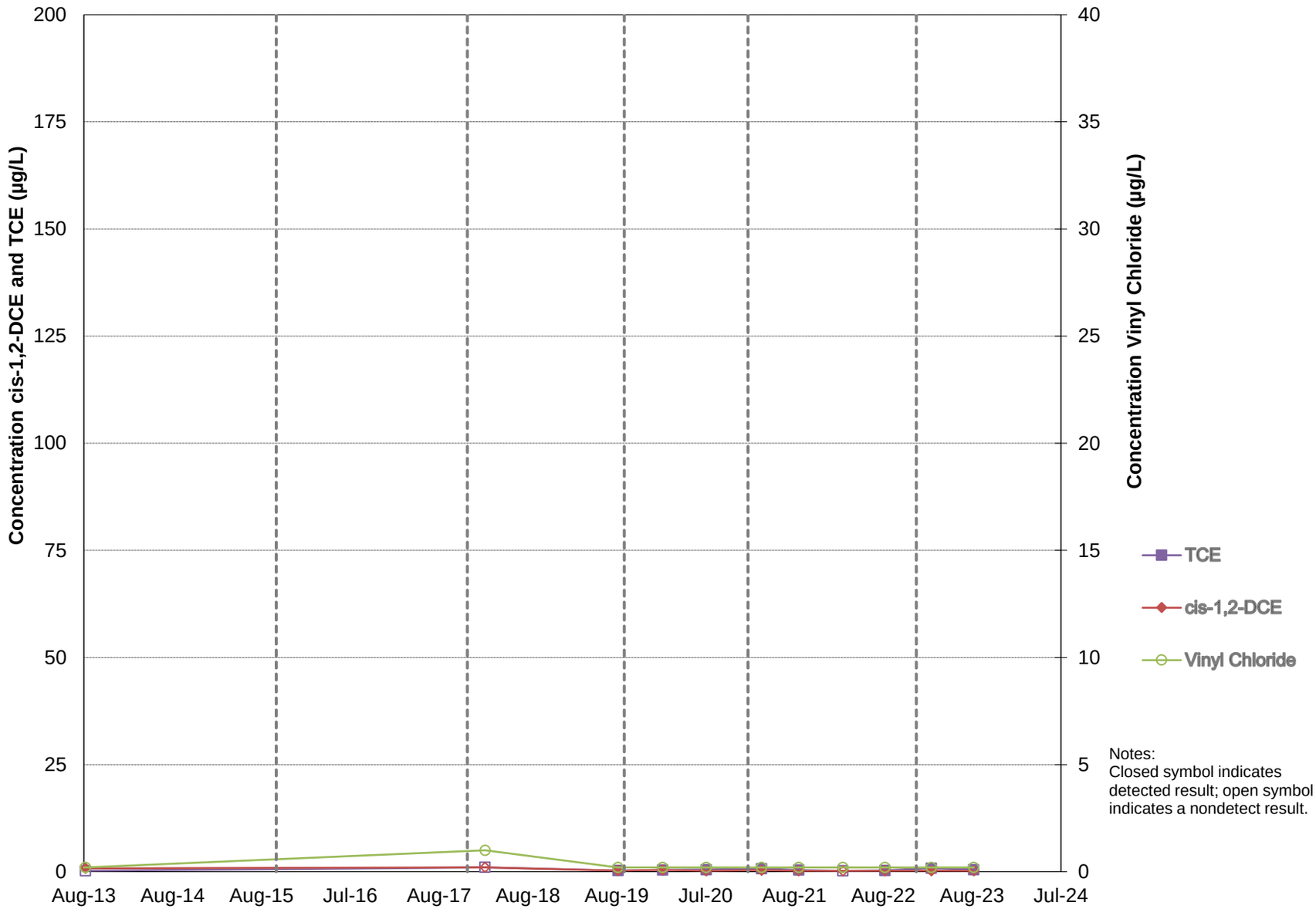

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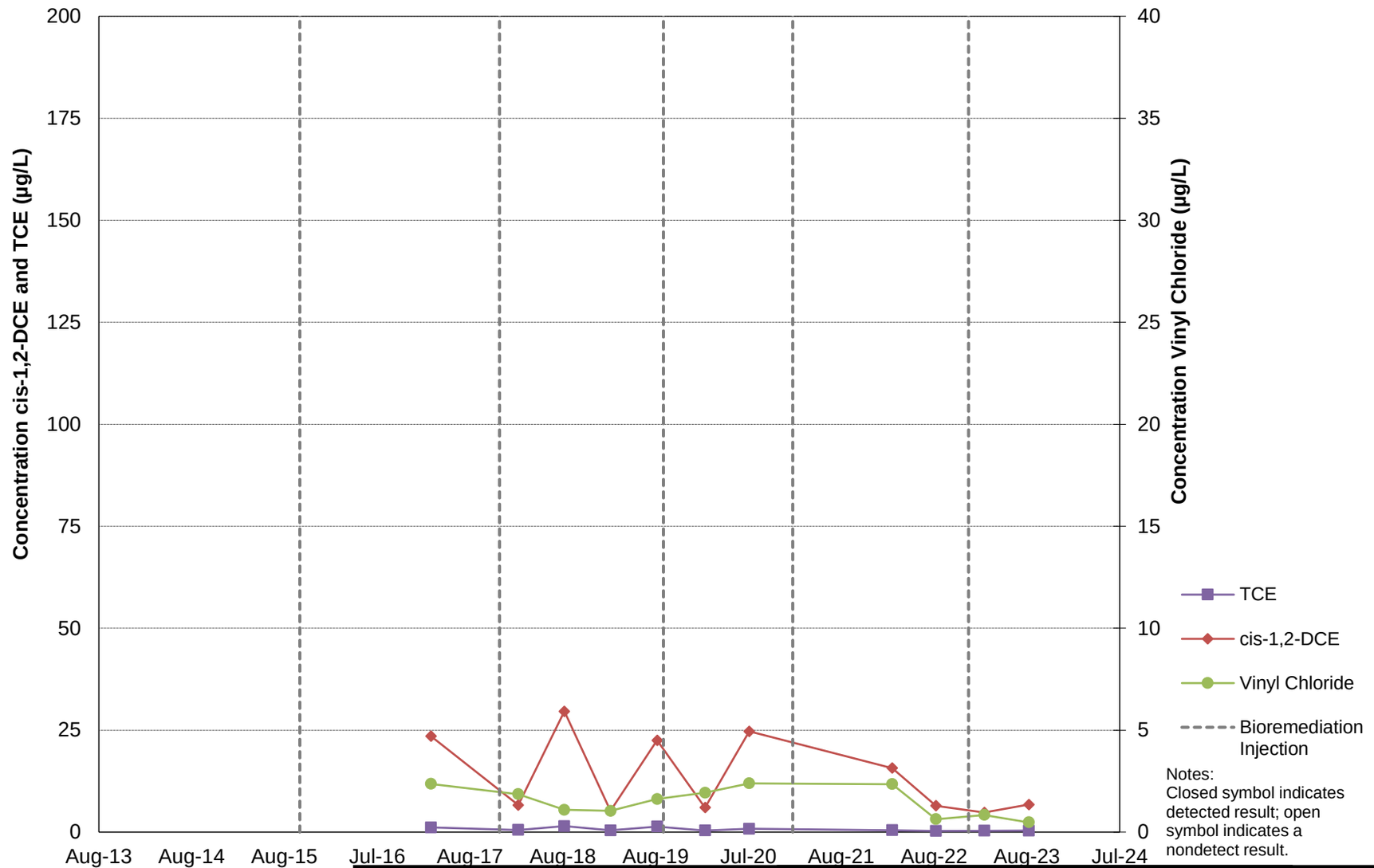
North Boeing Field
Seattle, Washington

Area 3-360 NGW207 Time Series

Figure
1-5

P:\025\082\.915 RI-FS\M\Progress Reports - Quarterly\2023\3Q23\Attachments\Attach 1_NBF Plots 3Q23



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North Boeing Field
Seattle, Washington

Area 3-360 NGW208 Time Series

Figure
1-6

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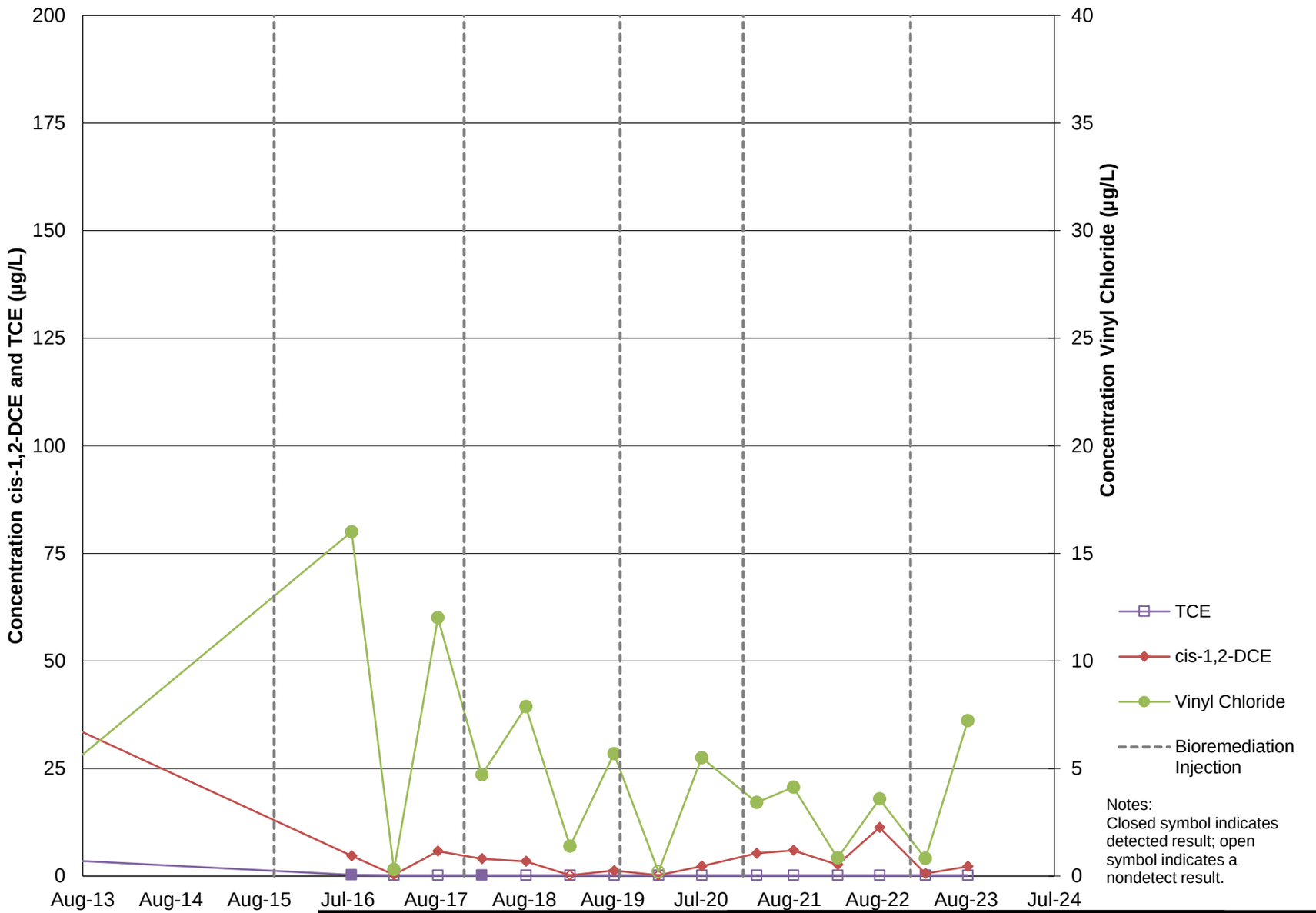

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North Boeing Field
Seattle, Washington

Area 3-360 NGW211 Time Series

Figure
1-7

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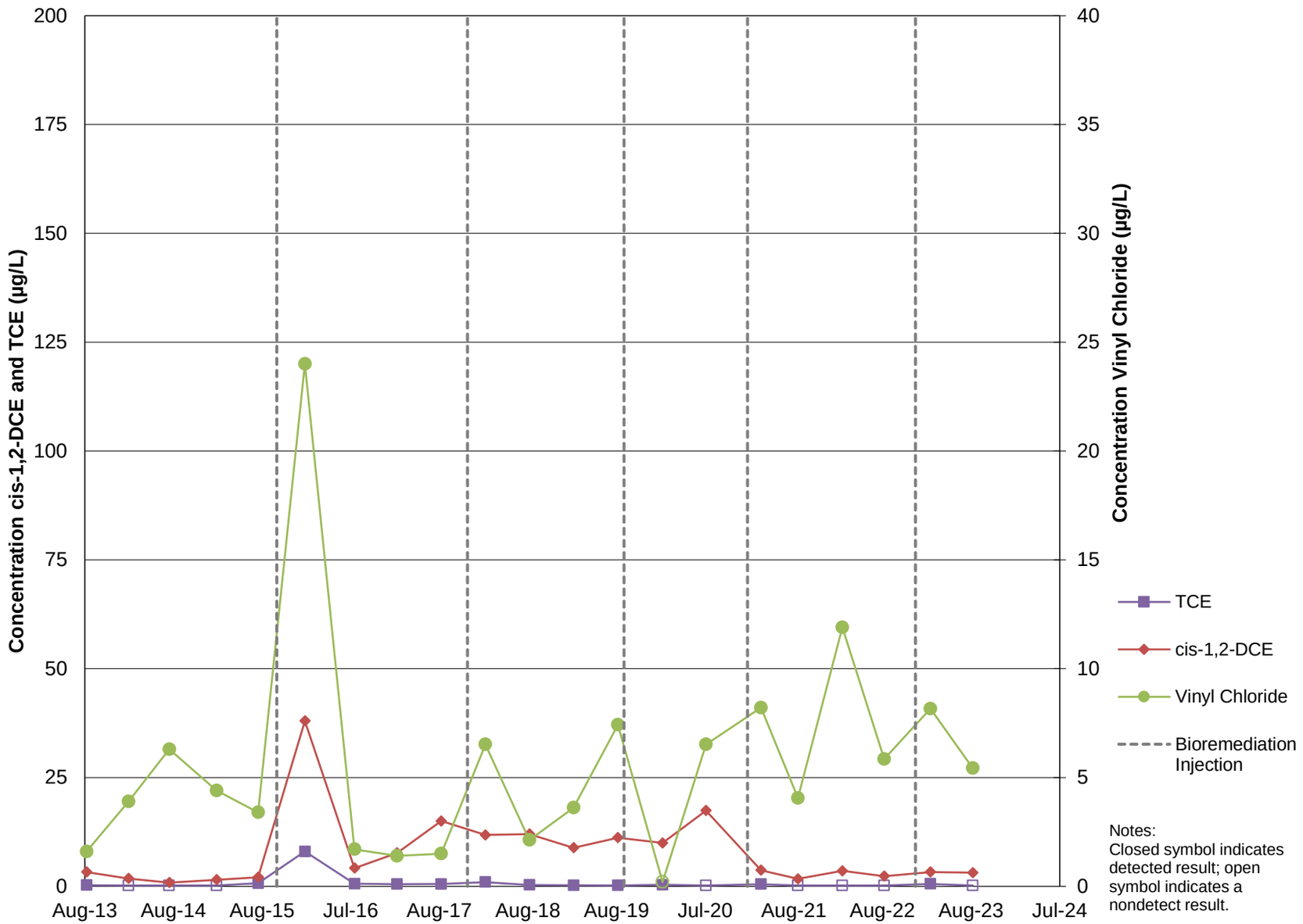

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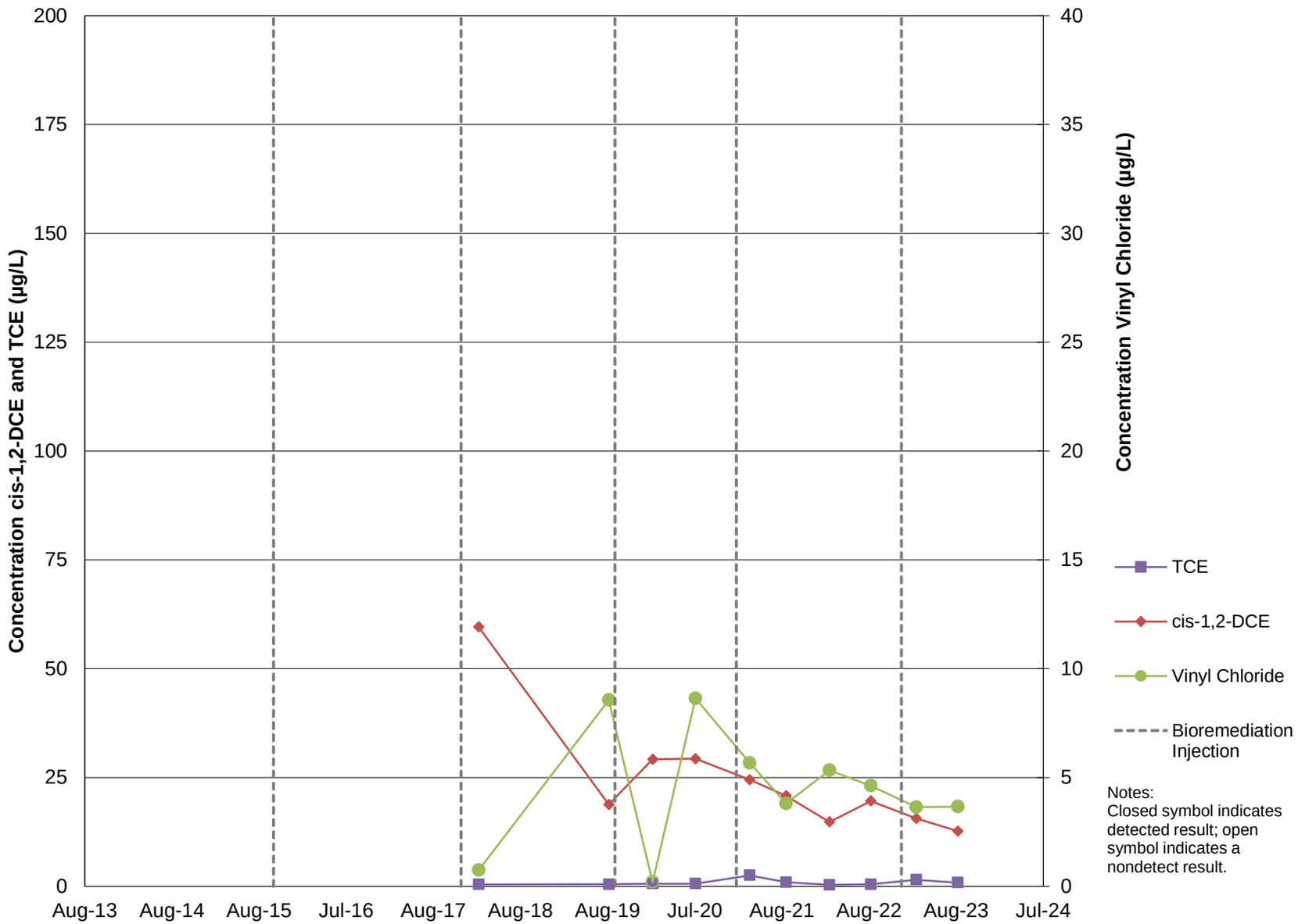
North Boeing Field
Seattle, Washington

Area 3-360 NGW212 Time Series

Figure
1-8

P:\025\082\.915 RI-FS\M\Progress Reports - Quarterly\2023\3Q23\Attachments\Attach 1_NBF Plots 3Q23



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North Boeing Field
Seattle, Washington

Area 3-360 NGW220 Time Series

Figure
1-9

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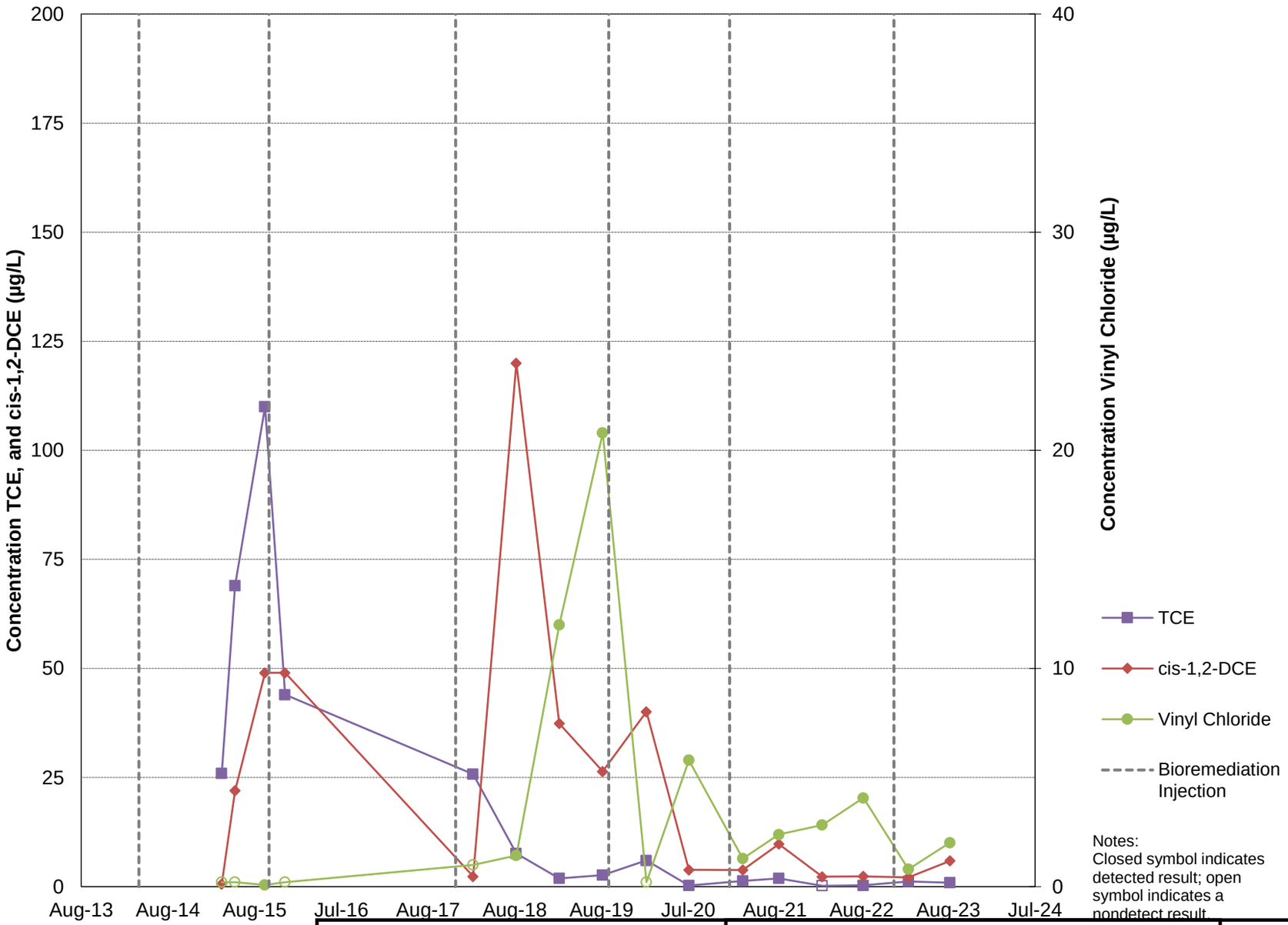

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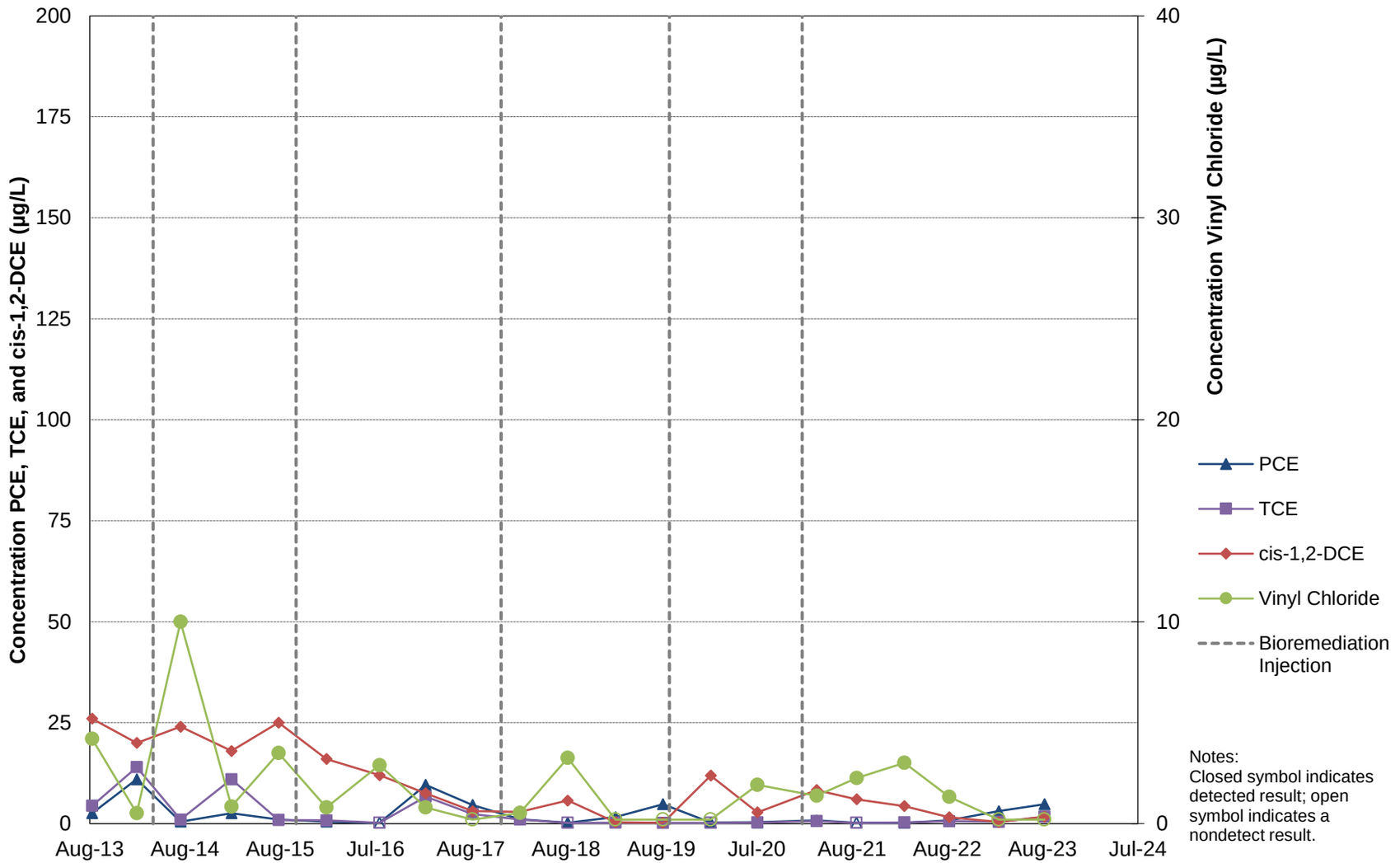
North Boeing Field
Seattle, Washington

Area 3-360 NGW607 Time Series

Figure
1-10

P:\025\082\.915 RI-FS\M\Progress Reports - Quarterly\2023\3Q23\Attachments\Attach 1_NBF Plots 3Q23



Notes:
Closed symbol indicates detected result; open symbol indicates a nondetect result.

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North Boeing Field
Seattle, Washington

Area 3-800 NGW301 Time Series

Figure
1-11

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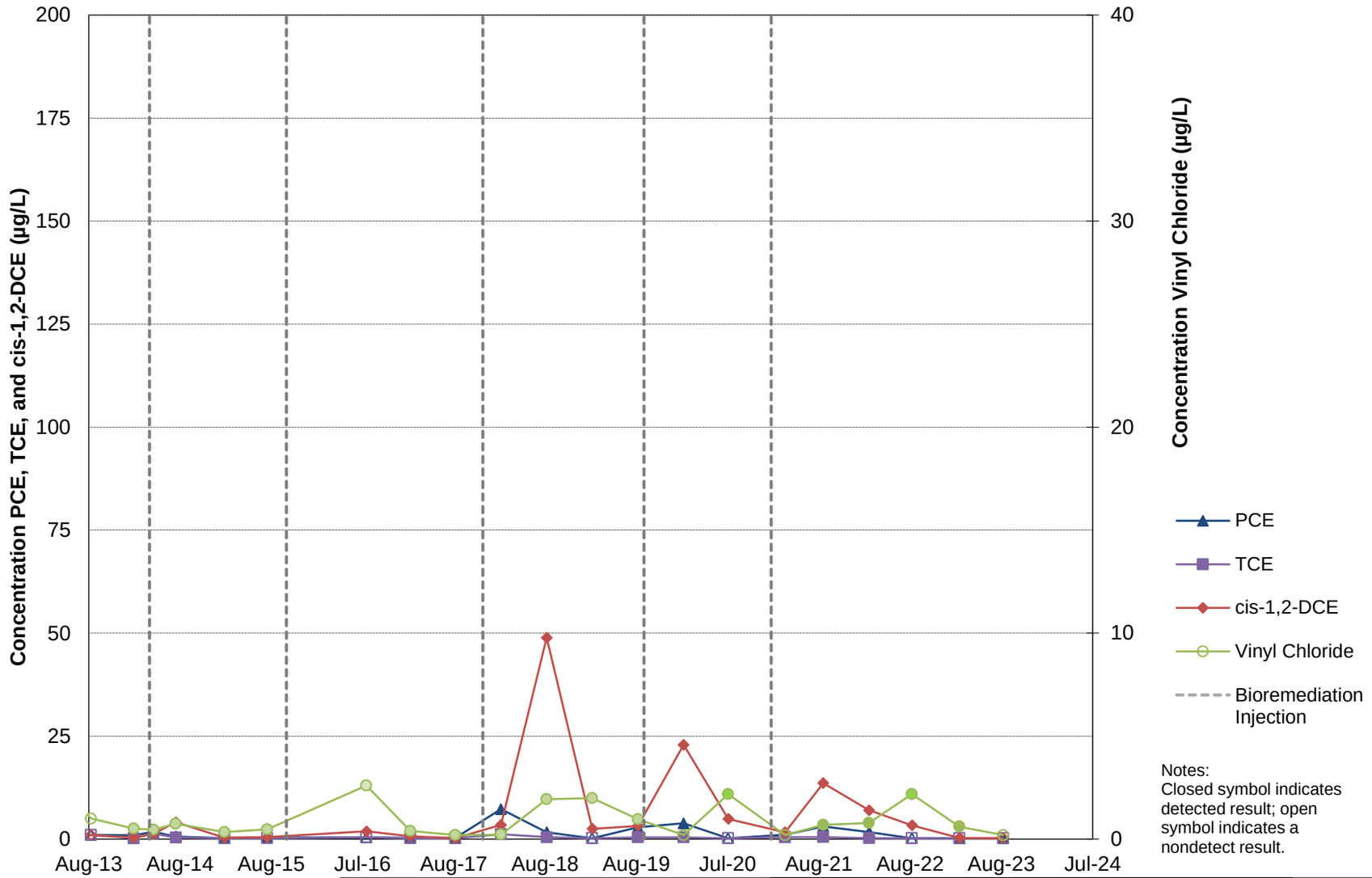

Notes:
Closed symbol indicates detected result; open symbol indicates a nondetect result.

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North Boeing Field
Seattle, Washington

Area 3-800 NGW307 Time Series

Figure
1-12

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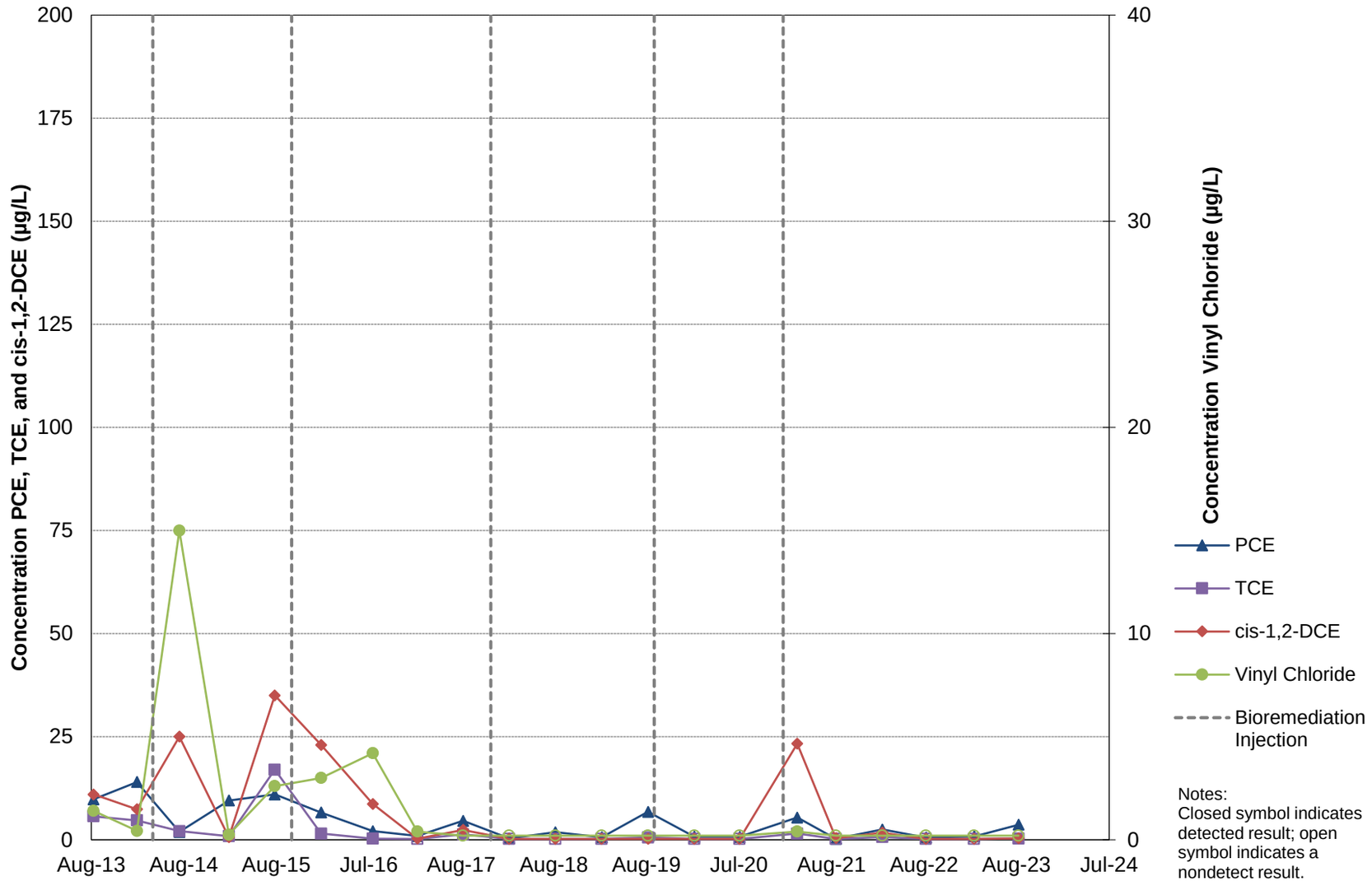

Notes:
Closed symbol indicates detected result; open symbol indicates a nondetect result.

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North Boeing Field
Seattle, Washington

Area 3-800 NGW308 Time Series

Figure
1-13

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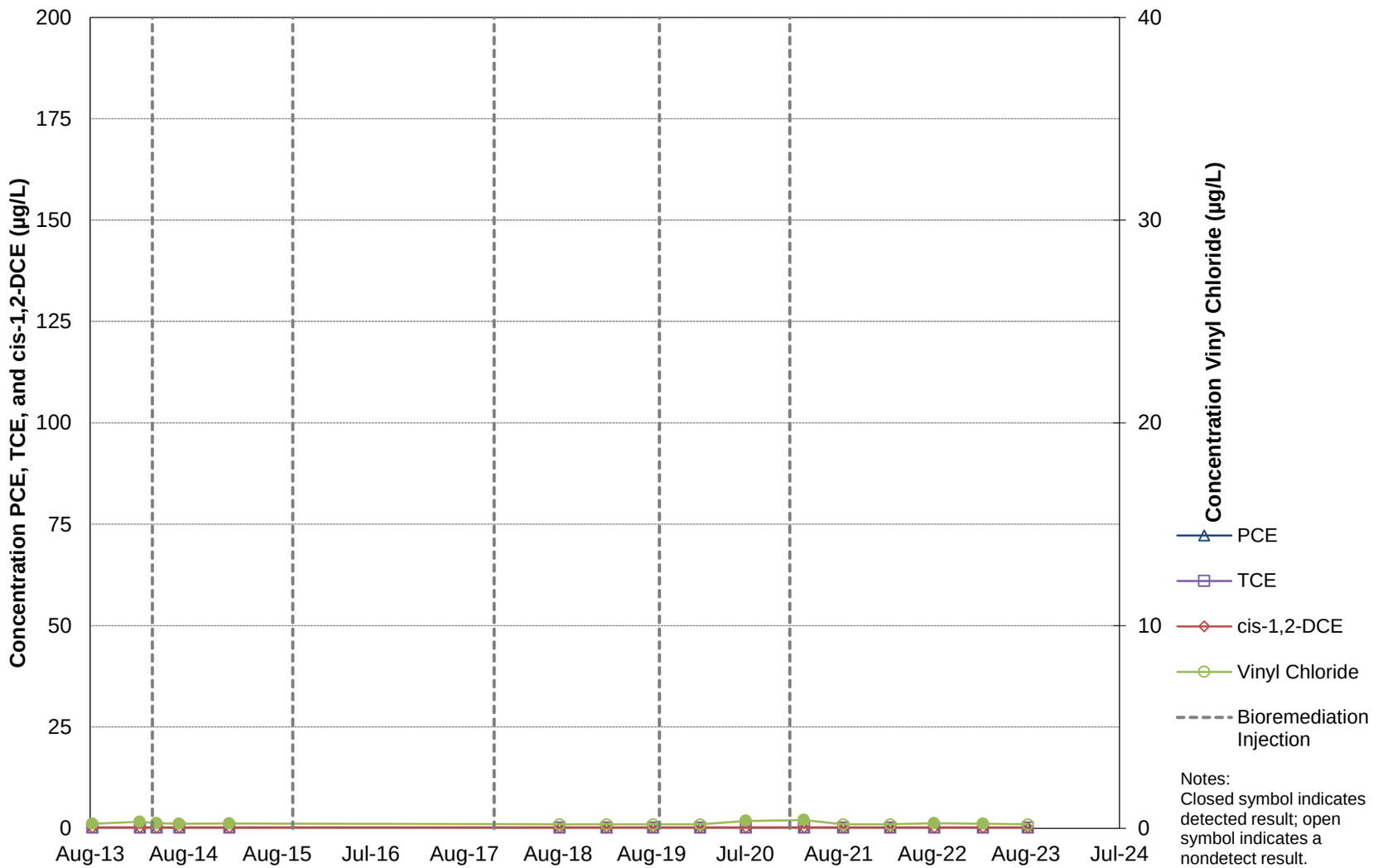

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North Boeing Field
Seattle, Washington

Area 3-800 NGW309 Time Series

Figure
1-14

ATTACHMENT 2

Laboratory Data Packages

Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

21 August 2023

Jennifer Parsons
The Boeing Company [North Boeing Field]
PO Box 3703 MS 2R-96
Seattle, WA 98124

RE: NBF Regional GW Program (025217.003.099.079)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
23H0225	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

Kelly Bottem, Client Services Manager

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

Accredited in accordance with nelac
Cert# 100006-012

LANDAU ASSOCIATES

Chain-of-Custody Record

☒ North Seattle (206) 631-8660 ☐ Tacoma (253) 926-2493 ☐ Olympia (360) 791-3178 ☐ Spokane (509) 327-9737 ☐ Portland (503) 542-1080 ☐ _____

Date 8/9/2023 Page 1 of 1

Turnaround Time: ~~Standard~~ _____ Accelerated _____

Project Name Boeing Regional GW Project No. 025217.003.099.079

Project Location/Event North Boeing Field / August 2023

Sampler's Name Adam Torocsik, Mina Walters

Project Contact Chris Kimmel

Send Results To C. Kimmel, J. Parsons

Special Handling Requirements: _____

Shipment Method: Dropoff

Stored on ice: (Yes) / No

Sample I.D.	Date	Time	Matrix	No. of Containers	Testing Parameters: VOCs (EPA 8260D)*	TOC (SM5310C)**	MS/MSD	Observations/Comments
FS27-A-230808	8/8/2023	1041	AQ	4	X	X		
NGW212-230808		1128		4	X	X		
NGW607-230808		1139		4	X	X		
DUP-1-230808		1131		4	X	X		
NGW203-230808		1212		4	X	X		
NGW220-230808		1243		4	X	X		
NGW206-230808		1258		4	X	X		
NGW201-230808		1338		4	X	X		
NGW211-230808		1341		4	X	X		
NGW207-230808		1416		4	X	X		
NGW307-230808		1538		4	X	X		
NGW308-230808		1545		4	X	X		
NGW301-230808		1616		12	X	X	X	
NGW309-230808		1629		4	X	X		
NGW208-230808		1730		4	X	X		
Trip Blank-230808		-		2	X			

Observations/Comments

__ Allow water samples to settle, collect aliquot from clear portion ☐

__ NWTPH-Dx - Acid wash cleanup ☐ - Silica gel cleanup ☐

__ Dissolved metal samples were field filtered

Other

* PCE, TCE, cis-1,2-DCE, VC only

** RL = 1.0 mg/L

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Printed Name Adam Torocsik	Printed Name Kevin Cruz	Printed Name	Printed Name
Company LDI	Company ARIC	Company	Company
Date 8/9/2023 Time 941	Date 080923 Time 0941	Date Time	Date Time

WHITE COPY - Laboratory YELLOW COPY - Project File PINK COPY - Client Representative

10/2018

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS27-A-230808	23H0225-01	Water	08-Aug-2023 10:41	09-Aug-2023 09:41
NGW212-230808	23H0225-02	Water	08-Aug-2023 11:28	09-Aug-2023 09:41
NGW607-230808	23H0225-03	Water	08-Aug-2023 11:39	09-Aug-2023 09:41
DUP-1-230808	23H0225-04	Water	08-Aug-2023 11:31	09-Aug-2023 09:41
NGW203-230808	23H0225-05	Water	08-Aug-2023 12:12	09-Aug-2023 09:41
NGW220-230808	23H0225-06	Water	08-Aug-2023 12:43	09-Aug-2023 09:41
NGW206-230808	23H0225-07	Water	08-Aug-2023 12:58	09-Aug-2023 09:41
NGW201-230808	23H0225-08	Water	08-Aug-2023 13:38	09-Aug-2023 09:41
NGW211-230808	23H0225-09	Water	08-Aug-2023 13:41	09-Aug-2023 09:41
NGW207-230808	23H0225-10	Water	08-Aug-2023 14:16	09-Aug-2023 09:41
NGW307-230808	23H0225-11	Water	08-Aug-2023 15:38	09-Aug-2023 09:41
NGW308-230808	23H0225-12	Water	08-Aug-2023 15:45	09-Aug-2023 09:41
NGW301-230808	23H0225-13	Water	08-Aug-2023 16:16	09-Aug-2023 09:41
NGW309-230808	23H0225-14	Water	08-Aug-2023 16:29	09-Aug-2023 09:41
NGW208-230808	23H0225-15	Water	08-Aug-2023 17:30	09-Aug-2023 09:41
Trip Blanks-230808	23H0225-16	Water	08-Aug-2023 10:41	09-Aug-2023 09:41

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

Work Order Case Narrative

Volatiles - EPA Method SW8260D

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) spike recoveries and relative percent difference (RPD) were within advisory control limits.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were within advisory control limits.

Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

KFC 080923

ARI Client: ~~Boeing~~ LANDAU

COC No(s): _____ NA

Assigned ARI Job No: 23H0225

Project Name: Boeing Regional FW

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 2.6

Time 0941

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: K008117

Cooler Accepted by: KFC Date: 080923 Time: 0941

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	YES	NO
How were bottles sealed in plastic bags?	Individually	Grouped	Not
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ...	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	MP 08/09/23	YES	NO
Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____	NA	08/09/23 Split by: _____	

Samples Logged by: ~~KFC~~ MP 08/09/23 Date: 080923 Time: _____ Labels checked by: MP 08/09/23 ~~KFC~~

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

WORK ORDER

23H0225

Samples will be discarded 90 days after submission of a final report unless other instructions are received

Client: The Boeing Company [North Boeing Field] **Project Manager:** Kelly Bottem

Project: NBF Regional GW Program **Project Number:** 025217.003.099.079

Preservation Confirmation

Container ID	Container Type	pH
23H0225-01 A	Glass NM, Amber, 250 mL, 9N H2SO4	<2 pass
23H0225-01 B	VOA Vial, Clear, 40 mL, HCL	
23H0225-01 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-01 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-02 A	Glass NM, Amber, 250 mL, 9N H2SO4	<2 pass
23H0225-02 B	VOA Vial, Clear, 40 mL, HCL	
23H0225-02 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-02 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-03 A	Glass NM, Amber, 250 mL, 9N H2SO4	<2 pass
23H0225-03 B	VOA Vial, Clear, 40 mL, HCL	
23H0225-03 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-03 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-04 A	Glass NM, Amber, 250 mL, 9N H2SO4	<2 pass
23H0225-04 B	VOA Vial, Clear, 40 mL, HCL	
23H0225-04 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-04 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-05 A	Glass NM, Amber, 250 mL, 9N H2SO4	<2 pass
23H0225-05 B	VOA Vial, Clear, 40 mL, HCL	
23H0225-05 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-05 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-06 A	Glass NM, Amber, 250 mL, 9N H2SO4	<2 pass
23H0225-06 B	VOA Vial, Clear, 40 mL, HCL	
23H0225-06 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-06 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-07 A	Glass NM, Amber, 250 mL, 9N H2SO4	<2 pass
23H0225-07 B	VOA Vial, Clear, 40 mL, HCL	
23H0225-07 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-07 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-08 A	Glass NM, Amber, 250 mL, 9N H2SO4	<2 pass
23H0225-08 B	VOA Vial, Clear, 40 mL, HCL	
23H0225-08 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-08 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-09 A	Glass NM, Amber, 250 mL, 9N H2SO4	<2 pass
23H0225-09 B	VOA Vial, Clear, 40 mL, HCL	

Reviewed By

Date

WORK ORDER

23H0225

Samples will be discarded 90 days after submission of a final report unless other instructions are received

Client: The Boeing Company [North Boeing Field] **Project Manager:** Kelly Bottem

Project: NBF Regional GW Program **Project Number:** 025217.003.099.079

23H0225-09 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-09 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-10 A	Glass NM, Amber, 250 mL, 9N H2SO4	L2 pass
23H0225-10 B	VOA Vial, Clear, 40 mL, HCL	
23H0225-10 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-10 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-11 A	Glass NM, Amber, 250 mL, 9N H2SO4	L2 pass
23H0225-11 B	VOA Vial, Clear, 40 mL, HCL	
23H0225-11 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-11 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-12 A	Glass NM, Amber, 250 mL, 9N H2SO4	L2 pass
23H0225-12 B	VOA Vial, Clear, 40 mL, HCL	
23H0225-12 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-12 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-13 A	Glass NM, Amber, 250 mL, 9N H2SO4	L2 pass
23H0225-13 B	Glass NM, Amber, 250 mL, 9N H2SO4	L2 pass
23H0225-13 C	Glass NM, Amber, 250 mL, 9N H2SO4	L2 pass
23H0225-13 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-13 E	VOA Vial, Clear, 40 mL, HCL	
23H0225-13 F	VOA Vial, Clear, 40 mL, HCL	
23H0225-13 G	VOA Vial, Clear, 40 mL, HCL	
23H0225-13 H	VOA Vial, Clear, 40 mL, HCL	
23H0225-13 I	VOA Vial, Clear, 40 mL, HCL	
23H0225-13 J	VOA Vial, Clear, 40 mL, HCL	
23H0225-13 K	VOA Vial, Clear, 40 mL, HCL	
23H0225-13 L	VOA Vial, Clear, 40 mL, HCL	
23H0225-14 A	Glass NM, Amber, 250 mL, 9N H2SO4	L2 pass
23H0225-14 B	VOA Vial, Clear, 40 mL, HCL	
23H0225-14 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-14 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-15 A	Glass NM, Amber, 250 mL, 9N H2SO4	L2 pass
23H0225-15 B	VOA Vial, Clear, 40 mL, HCL	
23H0225-15 C	VOA Vial, Clear, 40 mL, HCL	
23H0225-15 D	VOA Vial, Clear, 40 mL, HCL	
23H0225-16 A	VOA Vial, Clear, 40 mL, HCL	
23H0225-16 B	VOA Vial, Clear, 40 mL, HCL	

Reviewed By

Date

WORK ORDER

23H0225

Samples will be discarded 90 days after submission of a final report unless other instructions are received

Client: The Boeing Company [North Boeing Field] **Project Manager:** Kelly Bottem

Project: NBF Regional GW Program **Project Number:** 025217.003.099.079

MD
Preservation Confirmed By

08/09/23
Date

Reviewed By

Date

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

FS27-A-230808

23H0225-01 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 10:41

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 01:16

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-01 B

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	ND	ug/L	U
cis-1,2-Dichloroethene	156-59-2	1	0.20	6.87	ug/L	
Trichloroethene	79-01-6	1	0.20	2.74	ug/L	
Tetrachloroethene	127-18-4	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*103*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*97.7*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*93.1*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

FS27-A-230808

23H0225-01 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 10:41

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 13:12

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-01 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	3.74	mg/L	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW212-230808

23H0225-02 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 11:28

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 01:39

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-02 B

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	5.43	ug/L	
cis-1,2-Dichloroethene	156-59-2	1	0.20	3.15	ug/L	
Trichloroethene	79-01-6	1	0.20	ND	ug/L	U
Tetrachloroethene	127-18-4	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*105*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*99.6*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*94.4*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW212-230808

23H0225-02 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 11:28

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 13:30

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-02 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	11.31	mg/L	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW607-230808

23H0225-03 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 11:39

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 02:02

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-03 B

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	2.02	ug/L	
cis-1,2-Dichloroethene	156-59-2	1	0.20	5.94	ug/L	
Trichloroethene	79-01-6	1	0.20	0.92	ug/L	
Tetrachloroethene	127-18-4	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*97.5*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*104*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*103*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW607-230808

23H0225-03 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 11:39

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 13:54

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-03 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		5	2.50	2.50	391.1	mg/L	D

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

DUP-1-230808

23H0225-04 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 11:31
Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 02:25

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-04 B
Preparation Batch: BLH0264 — Sample Size: 10 mL
Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	1.82	ug/L	
cis-1,2-Dichloroethene	156-59-2	1	0.20	5.75	ug/L	
Trichloroethene	79-01-6	1	0.20	0.84	ug/L	
Tetrachloroethene	127-18-4	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*96.9*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*102*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*106*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

DUP-1-230808

23H0225-04 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 11:31

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 14:16

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-04 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		10	5.00	5.00	417.5	mg/L	D

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW203-230808

23H0225-05 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 12:12

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 02:49

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-05 B

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	8.61	ug/L	
cis-1,2-Dichloroethene	156-59-2	1	0.20	14.3	ug/L	
Trichloroethene	79-01-6	1	0.20	0.43	ug/L	
Tetrachloroethene	127-18-4	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*98.4*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*100*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*97.6*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW203-230808

23H0225-05 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 12:12

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 14:37

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-05 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		5	2.50	2.50	47.57	mg/L	D

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW220-230808

23H0225-06 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 12:43

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 03:12

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-06 B

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	3.66	ug/L	
cis-1,2-Dichloroethene	156-59-2	1	0.20	12.7	ug/L	
Trichloroethene	79-01-6	1	0.20	0.86	ug/L	
Tetrachloroethene	127-18-4	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*99.5*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*98.9*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*98.7*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW220-230808

23H0225-06 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 12:43

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 14:57

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-06 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	92.42	mg/L	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW206-230808

23H0225-07 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 12:58

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 03:35

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-07 B

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	15.8	ug/L	
cis-1,2-Dichloroethene	156-59-2	1	0.20	1.74	ug/L	
Trichloroethene	79-01-6	1	0.20	ND	ug/L	U
Tetrachloroethene	127-18-4	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*108*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*99.6*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*92.4*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW206-230808

23H0225-07 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 12:58

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 16:00

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-07 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	7.23	mg/L	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW201-230808

23H0225-08 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 13:38

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 03:58

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-08 B

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	22.4	ug/L	
cis-1,2-Dichloroethene	156-59-2	1	0.20	0.44	ug/L	
Trichloroethene	79-01-6	1	0.20	ND	ug/L	U
Tetrachloroethene	127-18-4	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*104*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*98.1*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*92.3*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW201-230808

23H0225-08 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 13:38

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 16:18

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-08 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	6.05	mg/L	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW211-230808

23H0225-09 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 13:41

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 04:21

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-09 B

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	7.22	ug/L	
cis-1,2-Dichloroethene	156-59-2	1	0.20	2.24	ug/L	
Trichloroethene	79-01-6	1	0.20	ND	ug/L	U
Tetrachloroethene	127-18-4	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*108*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*99.2*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*92.2*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW211-230808

23H0225-09 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 13:41

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 16:37

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-09 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	9.27	mg/L	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW207-230808

23H0225-10 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 14:16

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 04:45

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-10 B

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	ND	ug/L	U
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Trichloroethene	79-01-6	1	0.20	0.46	ug/L	
Tetrachloroethene	127-18-4	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*103*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*100*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*91.3*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW207-230808

23H0225-10 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 14:16

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 16:56

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-10 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	17.76	mg/L	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW307-230808

23H0225-11 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 15:38

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 05:08

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-11 B

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	ND	ug/L	U
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Trichloroethene	79-01-6	1	0.20	ND	ug/L	U
Tetrachloroethene	127-18-4	1	0.20	0.20	ug/L	
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*106*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*83.5*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*91.4*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW307-230808

23H0225-11 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 15:38

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 17:18

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-11 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	27.13	mg/L	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW308-230808

23H0225-12 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 15:45

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 05:31

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-12 B

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	ND	ug/L	U
cis-1,2-Dichloroethene	156-59-2	1	0.20	0.33	ug/L	
Trichloroethene	79-01-6	1	0.20	0.32	ug/L	
Tetrachloroethene	127-18-4	1	0.20	3.64	ug/L	
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*108*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*99.6*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*90.7*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW308-230808

23H0225-12 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 15:45

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 17:37

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-12 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	13.50	mg/L	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW301-230808

23H0225-13 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 16:16

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 05:54

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-13 D

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	ND	ug/L	U
cis-1,2-Dichloroethene	156-59-2	1	0.20	1.70	ug/L	
Trichloroethene	79-01-6	1	0.20	1.72	ug/L	
Tetrachloroethene	127-18-4	1	0.20	4.82	ug/L	
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*107*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*98.9*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*89.9*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW301-230808

23H0225-13 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 16:16

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 17:59

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-13 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	3.20	mg/L	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW309-230808

23H0225-14 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 16:29

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 06:17

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-14 B

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	ND	ug/L	U
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Trichloroethene	79-01-6	1	0.20	ND	ug/L	U
Tetrachloroethene	127-18-4	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*111*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*98.8*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*88.5*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW309-230808

23H0225-14 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 16:29

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 19:00

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-14 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	16.43	mg/L	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW208-230808

23H0225-15 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 17:30

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 06:40

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-15 B

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	0.48	ug/L	
cis-1,2-Dichloroethene	156-59-2	1	0.20	6.74	ug/L	
Trichloroethene	79-01-6	1	0.20	0.35	ug/L	
Tetrachloroethene	127-18-4	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*108*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*99.8*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*89.8*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

NGW208-230808

23H0225-15 (Water)

Wet Chemistry

Method: SM 5310 B-00 — Sampled: 08/08/2023 17:30

Instrument: TOC-LCSH Analyst: RMS — Analyzed: 08/18/2023 20:04

Sample Preparation: Preparation Method: No Prep Wet Chem — Extract ID: 23H0225-15 A

Preparation Batch: BLH0520 — Sample Size: 20 mL

Prepared: 08/18/2023 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.50	0.50	10.69	mg/L	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

Trip Blanks-230808

23H0225-16 (Water)

Volatile Organic Compounds

Method: EPA 8260D — Sampled: 08/08/2023 10:41

Instrument: NT20 Analyst: PKC — Analyzed: 08/10/2023 00:52

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap) — Extract ID: 23H0225-16 A

Preparation Batch: BLH0264 — Sample Size: 10 mL

Prepared: 08/09/2023 — Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl Chloride	75-01-4	1	0.20	ND	ug/L	U
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Trichloroethene	79-01-6	1	0.20	ND	ug/L	U
Tetrachloroethene	127-18-4	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			*80-129 %*	*102*	*%*	
Surrogate: Toluene-d8			*80-120 %*	*84.6*	*%*	
Surrogate: 4-Bromofluorobenzene			*80-120 %*	*94.7*	*%*	

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BLH0264 - EPA 8260D

Instrument: NT20 Analyst: PKC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BLH0264-BLK1)				Prepared: 09-Aug-2023 Analyzed: 10-Aug-2023 00:29						
Vinyl Chloride	ND	0.20	ug/L							U
cis-1,2-Dichloroethene	ND	0.20	ug/L							U
Trichloroethene	ND	0.20	ug/L							U
Tetrachloroethene	ND	0.20	ug/L							U
Surrogate: 1,2-Dichloroethane-d4	5.18		ug/L	*5.0000*		*104*	*80-129*			
Surrogate: Toluene-d8	4.11		ug/L	*5.0000*		*82.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	4.78		ug/L	*5.0000*		*95.6*	*80-120*			
LCS (BLH0264-BS1)				Prepared: 09-Aug-2023 Analyzed: 09-Aug-2023 23:20						
Vinyl Chloride	9.64	0.20	ug/L	10.000		96.4	66-133			
cis-1,2-Dichloroethene	9.82	0.20	ug/L	10.000		98.2	80-121			
Trichloroethene	10.4	0.20	ug/L	10.000		104	80-120			
Tetrachloroethene	9.80	0.20	ug/L	10.000		98.0	80-120			
Surrogate: 1,2-Dichloroethane-d4	4.73		ug/L	*5.0000*		*94.6*	*80-129*			
Surrogate: Toluene-d8	5.24		ug/L	*5.0000*		*105*	*80-120*			
Surrogate: 4-Bromofluorobenzene	5.16		ug/L	*5.0000*		*103*	*80-120*			
LCS Dup (BLH0264-BSD1)				Prepared: 09-Aug-2023 Analyzed: 09-Aug-2023 23:43						
Vinyl Chloride	9.53	0.20	ug/L	10.000		95.3	66-133	1.20	30	
cis-1,2-Dichloroethene	9.89	0.20	ug/L	10.000		98.9	80-121	0.73	30	
Trichloroethene	8.74	0.20	ug/L	10.000		87.4	80-120	17.40	30	
Tetrachloroethene	9.78	0.20	ug/L	10.000		97.8	80-120	0.18	30	
Surrogate: 1,2-Dichloroethane-d4	4.70		ug/L	*5.0000*		*94.0*	*80-129*			
Surrogate: Toluene-d8	4.40		ug/L	*5.0000*		*88.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	5.17		ug/L	*5.0000*		*103*	*80-120*			
Matrix Spike (BLH0264-MS1)	**Source: 23H0225-13**			Prepared: 09-Aug-2023 Analyzed: 10-Aug-2023 07:03						
Vinyl Chloride	9.67	0.20	ug/L	10.000	ND	96.7	66-133			
cis-1,2-Dichloroethene	11.7	0.20	ug/L	10.000	1.70	100	80-121			
Trichloroethene	12.4	0.20	ug/L	10.000	1.72	107	80-120			
Tetrachloroethene	14.6	0.20	ug/L	10.000	4.82	97.8	80-120			
Surrogate: 1,2-Dichloroethane-d4	5.04		ug/L	*5.0000*	*5.35*	*101*	*80-129*			
Surrogate: Toluene-d8	5.19		ug/L	*5.0000*	*4.94*	*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	4.99		ug/L	*5.0000*	*4.49*	*99.7*	*80-120*			

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BLH0264 - EPA 8260D

Instrument: NT20 Analyst: PKC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike (BLH0264-MS1)	**Source: 23H0225-13**		Prepared: 09-Aug-2023	Analyzed: 10-Aug-2023 07:03						
Recovery limits for target analytes in MS/MSD QC samples are advisory only.										
Matrix Spike Dup (BLH0264-MSD1)	**Source: 23H0225-13**		Prepared: 09-Aug-2023	Analyzed: 10-Aug-2023 07:27						
Vinyl Chloride	9.62	0.20	ug/L	10.000	ND	96.2	66-133	0.46	30	
cis-1,2-Dichloroethene	11.6	0.20	ug/L	10.000	1.70	98.9	80-121	1.15	30	
Trichloroethene	12.2	0.20	ug/L	10.000	1.72	105	80-120	1.40	30	
Tetrachloroethene	14.4	0.20	ug/L	10.000	4.82	95.8	80-120	1.38	30	
Surrogate: 1,2-Dichloroethane-d4	4.91		ug/L	*5.0000*	*5.35*	*98.1*	*80-129*			
Surrogate: Toluene-d8	5.23		ug/L	*5.0000*	*4.94*	*105*	*80-120*			
Surrogate: 4-Bromofluorobenzene	4.99		ug/L	*5.0000*	*4.49*	*99.8*	*80-120*			
Recovery limits for target analytes in MS/MSD QC samples are advisory only.										

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BLH0520 - SM 5310 B-00

Instrument: TOC-LCSH Analyst: RMS

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BLH0520-BLK1)				Prepared: 18-Aug-2023 Analyzed: 18-Aug-2023 12:26							
Total Organic Carbon	ND	0.50	0.50	mg/L							U
LCS (BLH0520-BS1)				Prepared: 18-Aug-2023 Analyzed: 18-Aug-2023 12:49							
Total Organic Carbon	19.28	0.50	0.50	mg/L	20.000		96.4	90-110			
Duplicate (BLH0520-DUP1)		**Source: 23H0225-13**		Prepared: 18-Aug-2023 Analyzed: 18-Aug-2023 18:21							
Total Organic Carbon	3.11	0.50	0.50	mg/L		3.20			2.98	20	
Matrix Spike (BLH0520-MS1)		**Source: 23H0225-13**		Prepared: 18-Aug-2023 Analyzed: 18-Aug-2023 18:40							
Total Organic Carbon	21.48	0.50	0.50	mg/L	19.996	3.20	91.4	75-125			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

The Boeing Company [North Boeing Field]	Project: NBF Regional GW Program	
PO Box 3703 MS 2R-96	Project Number: 025217.003.099.079	**Reported:**
Seattle WA, 98124	Project Manager: Jennifer Parsons	21-Aug-2023 18:15

Certified Analyses included in this Report

Analyte	Certifications
EPA 8260D in Water	
Vinyl Chloride	DoD-ELAP,ADEC,NELAP,WADOE
cis-1,2-Dichloroethene	DoD-ELAP,ADEC,NELAP,WADOE
Trichloroethene	DoD-ELAP,ADEC,NELAP,WADOE
Tetrachloroethene	DoD-ELAP,ADEC,NELAP,WADOE
SM 5310 B-00 in Water	
Total Organic Carbon	WA-DW,WADOE,NELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2025
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	02/28/2025
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2024

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Notes and Definitions

*	Flagged value is not within established control limits.
D	The reported value is from a dilution
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.