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June 21, 2023

Mr. David Raymond
New York State Department of Environmental Conservation
Region 1 – Division of Environmental Remediation
Building 40, SUNY
Stony Brook, New York 11790

158388

Subject: February 2023 Groundwater Sampling
Bartlett Tree Company Site, No. 0130074
345 Union Avenue, Westbury, NY

Dear Mr. Raymond:

On behalf of F. A. Bartlett Tree Expert Company (Bartlett), Brown and Caldwell Associates (BC) provides this interim report on the referenced groundwater sampling event. The Site Management Plan (SMP)[1] provides for groundwater sampling every 10 months from the four remaining monitoring wells (M-2D, MW-3, MW-4, and MW-5). The locations of the wells are shown on Figure 1 (attached).

Sample Collection

The sampling event was conducted on February 22, 2023. Prior to groundwater sample collection, a synoptic round of water level measurements was conducted for all four monitoring wells. The groundwater sampling employed USEPA low flow sampling methods in accordance with the SMP. Field data sheets are provided in Attachment B. Turbidity was measured immediately prior to sample collection using a calibrated Lamotte 2020 turbidity meter to confirm that samples had turbidity levels below 50 NTUs (Nephelometric Turbidity Units). To evaluate the effects of sample turbidity on analytical results, the SMP allows for collection and analysis of duplicate field-filtered groundwater samples from all four monitoring wells regardless of unfiltered turbidity. During the February 2023 round of sampling, all wells exhibited unfiltered turbidity below 50 NTUs (2.24 to 17.30). A comparison of unfiltered and filtered turbidity values for each monitoring well is provided below.

Monitoring Well	Unfiltered Turbidity (NTUs)	Filtered Turbidity (NTUs)
MW-2D	16.90	2.05
MW-3	5.37	1.62
MW-4	2.24	1.04
MW-5	17.30	1.58

[1] The original SMP of April 20, 2015 was modified via three DEC-approved addenda effective April 13, 2017 (BC, August 14, 2017), December 16, 2019 (BC, January 16, 2020), and August 15, 2020 (BC, August 10, 2020)

In addition to turbidity, the samples were screened in the field for pH, specific conductivity, temperature, and dissolved oxygen (DO) (see Appendix B for field data sheets). Field Quality Assurance/Quality Control (QA/QC) samples were collected in accordance with the Quality Assurance Project Plan (QAPP) included in the SMP, as follows:

- Field duplicates (one per 20 samples unfiltered/one per 20 samples filtered).
- Equipment blanks (one per 20 samples unfiltered/one per 20 samples filtered).
- Matrix spike/matrix spike duplicate (MS/MSD) (one per 20 samples unfiltered/one per 20 samples filtered).

All samples were submitted to Eurofins Lancaster Laboratories for analysis of TCL Organochlorine (OC) Pesticides by EPA SW-846 Method 8081B. The analytical laboratory is certified under the NYSDOH Environmental Laboratory Approval Program (ELAP) for this analytical method.

Analytical Data Validation

A Data Usability Summary Report (DUSR) was prepared for the groundwater data package (Attachment A). The analytical data were determined to be acceptable for the intended purposes and none of the data were rejected. As described in the DUSR, some data were qualified as follows:

- The surrogates DCB decachlorobipheny and tetrachloro-m-xylene percent recoveries for samples MW-5-UF-20230222 and MW-5-F-20230222 were below control limits. Associated sample detections are qualified as estimated, J, and non-detections are qualified as estimated with limited detection, UJ, reason code 3L. The associated samples are likely biased low.
- The method blank had a detection of BHC, beta and Heptachlor. Associated sample analytes less than five times the method blank detection are qualified as estimated with limited detection, UJ, the method detection limit (MDL) is raised to the sample concentration, and the reporting limit (RL) is raised, never lowered, to five times the blank detection, reason code 7. Non-detections are not qualified. The associated samples MW-2D-UF-20230222, MW-5-UF-20230222 and MW-5-F-20230222 are likely biased high.
- The MS/MSD relative percent differences (RPDs) for sample MW-3-F-20230222 were above control limits for Heptachlor epoxide and Endrin aldehyde. Associated sample detections are qualified as estimated, J, reason code 5. The parent sample MW-3-F-20230222 is likely biased high.
- The primary and confirmation analyses percent difference was above control limits. The lower concentration is considered reportable and is qualified as estimated, J, and non-detections are qualified as estimated with limited detection, UJ, reason code P. The associated samples are likely biased high.

Water Levels

Recent and past groundwater elevations are summarized in Table 1 (attached). The elevations on February 22, 2023 were consistent with those measured during previous years. Figure 2 (attached) shows contours of the February 22, 2023 water table elevations. The contours indicate southwesterly groundwater flow, generally within the range of flow directions previously identified.

Analytical Results

The February 2023 groundwater sampling results are summarized in Table 2 (attached). The results are compared to the 6NYCRR Part 703 Class GA Water Quality Standards. All results that exceed those standard values are highlighted by bold text and a solid box around the result.

Dieldrin was detected above its standard in the unfiltered samples from MW-2D and MW-4. Endrin and alpha BHC were detected above their standards in the unfiltered sample from MW-4 but not in the corresponding duplicate. As indicated in the trend plots provided as Figures 3a through 3f, the concentrations of Dieldrin and Endrin as well as the other Site constituents of concern are similar to prior rounds of sampling.

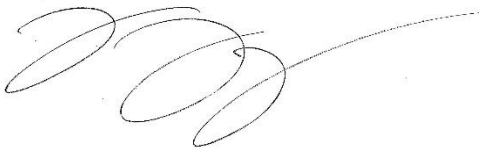
The next groundwater monitoring event is scheduled for December 2023.

Further discussion of the results, from both the February and December 2023 events, will be provided in the Periodic Review Report to be submitted by March 1, 2024.

Please call me with any questions or concerns.

Very truly yours,

Brown and Caldwell Associates



Brian Taylor, PG
Senior Associate Hydrogeologist

cc: David Marren, Esq. – Bartlett
Thomas West, Esq. – The West Firm
Frank Williams, PG – Brown and Caldwell

Attachments
Figures
Tables
Attachment A – Data Usability Summary Report
Attachment B – Field Data Sheets

Figures

N

VILLAGE OF WESTBURY
PARKING LOT

Building

Chain link Fence

FORMER MW-1D*

MW-1S***

Grate=104.28

Storm MH

105

5.3'

106

Concrete Curb

Wood Fence

0.4'

0.2'

Regional Groundwater Flow

Range of Local Shallow Groundwater Flow

FORMER DRYWELL 1

MASONRY WAREHOUSE

MW-4

in link Fence

MW-2D

MW-2S**

MW-3

0.4'

MW-5

LOT 786

LOT 207

LOT 787

LOT 206

0 10 20

Feet

Legend

MONITORING WELL

MONITORING WELL DROPPED FROM MONITORING PROGRAM

PROPERTY LINE

* Monitoring well MW-1D decommissioned in 2017.

** Monitoring well MW-2S was damaged in May 2018 and rendered unreliable. Monitoring well MW-2S decommissioned in 2019.

*** Monitoring well MW-1S inaccessible due to construction associated with the Long Island Railroad and Westbury North Parking Structure.

FIGURE 1

GROUNDWATER MONITORING WELL NETWORK

DATE
February 2023

PROJECT NUMBER
158388

BARTLETT TREE COMPANY SITE
WESTBURY, NEW YORK

Brown AND Caldwell

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N

VILLAGE OF WESTBURY
PARKING LOT

Building

Chain link Fence

Grate=104.28
Storm MH

MW-1S
(NA[1])

105

5.3'

106

Concrete Curb

Wood Fence

0.4'

0.2'

69.80

69.70

69.60

Regional
Groundwater
Flow

Range of
Local Shallow
Groundwater
Flow

FORMER
DRYWELL 1

MASONRY
WAREHOUSE

MW-4
(69.74)

Chain Fence

MW-2D

MW-3
(69.80)

0.4'

MW-5
(69.64)

69.80

69.70

LOT 786

LOT 207

LOT 787

69.60

LOT 206

0 10 20
Feet

Legend

- MONITORING WELL
- PAVEMENT EDGE
- GROUND SURFACE ELEVATION CONTOUR (FT., NGVD)
- PROPERTY LINE
- WATER ELEVATION CONTOUR (FT., NGVD) DASHED WHERE INFERRED
- GENERALIZED DIRECTION OF GROUNDWATER FLOW
- (69.64) WATER TABLE ELEVATION (FT., NGVD)
- (1) MW-1S DROPPED FROM MONITORING PROGRAM EFFECTIVE DECEMBER 16, 2019. SEE REPORT TEXT FOR MORE INFORMATION.

FIGURE 2

WATER TABLE CONTOUR MAP
FEBRUARY 22,2023

	DATE	PROJECT NUMBER
BARTLETT TREE COMPANY SITE WESTBURY, NEW YORK	APRIL 2023	158388

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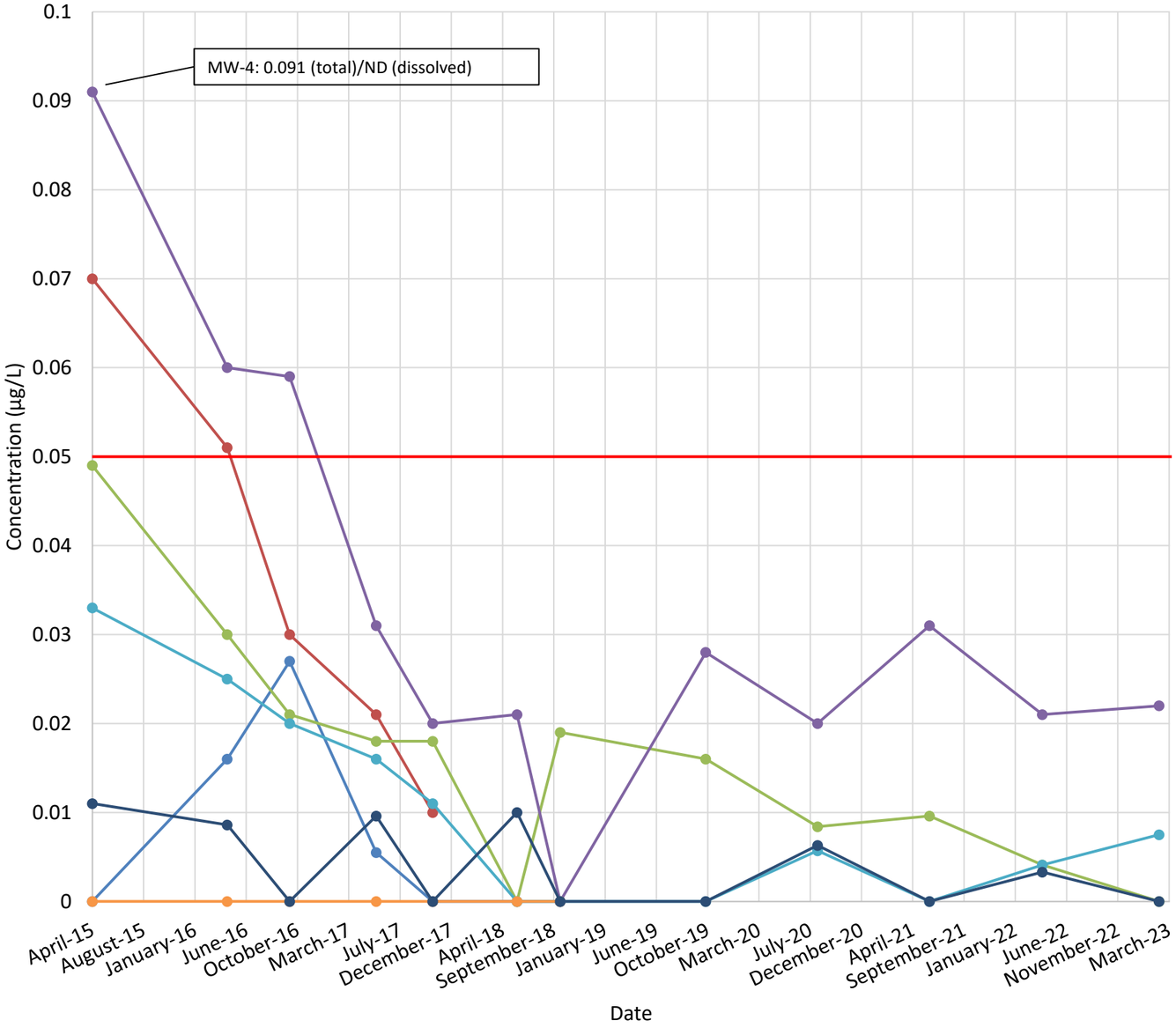
158388

Total Chlordane, alpha



Legend

- MW-1S
- MW-2S
- MW-3
- MW-4
- MW-5
- MW-1D
- MW-2D
- Part 703 Standard

Notes:
Concentrations of non-detect (below method detection limit) are plotted as 0 µg/L.

Total and dissolved concentrations provided (if available) when at least one concentration is above Part 703 Standard.

ND – non-detect

FIGURE 3a

Chlordane, alpha Trend Plot
All Site Monitoring Wells
(April 2015 – February 2023)

BARTLETT TREE EXPERTS
345 UNION AVENUE
WESTBURY, NY

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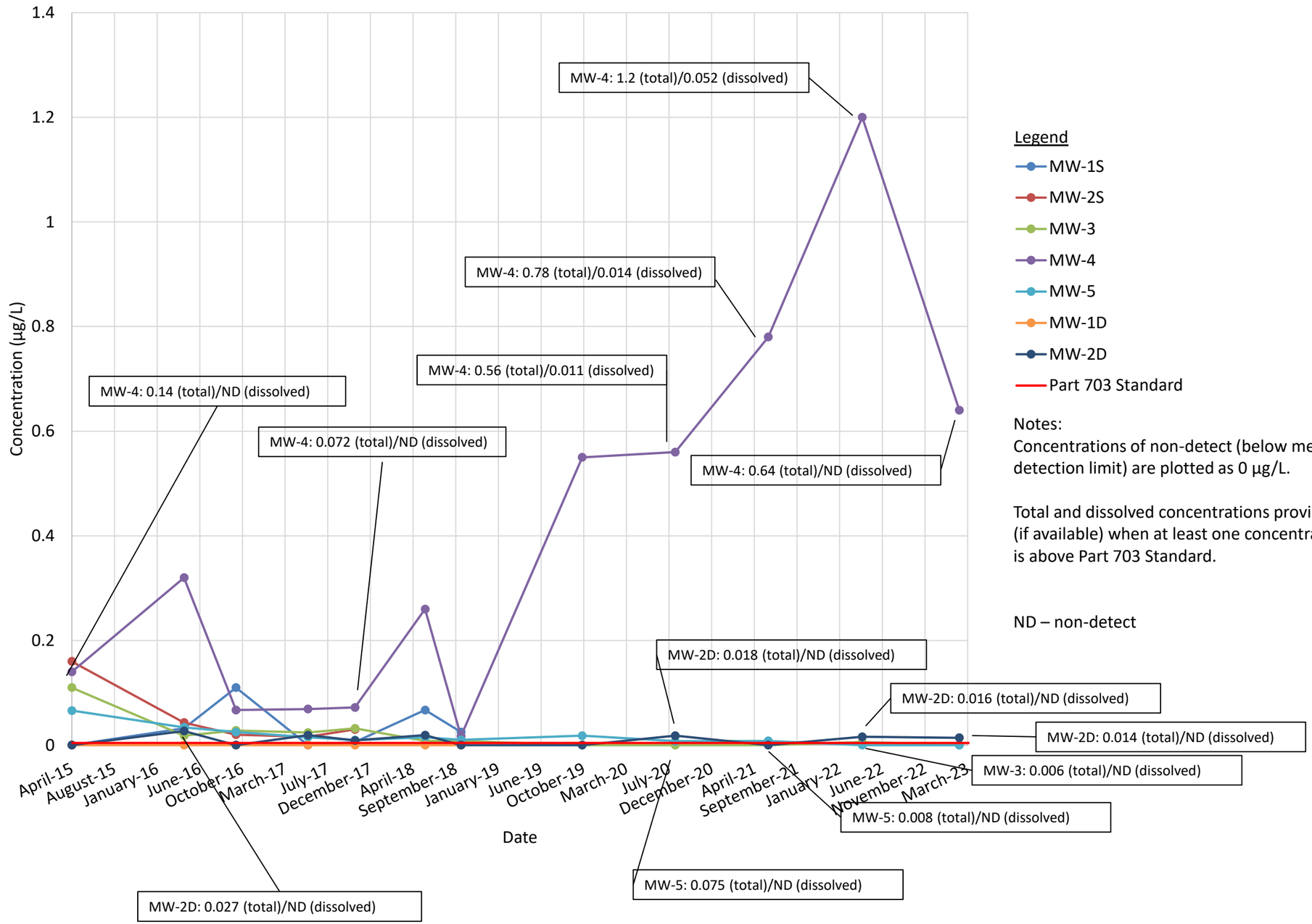
Total Dieldrin



Legend

- MW-1S
- MW-2S
- MW-3
- MW-4
- MW-5
- MW-1D
- MW-2D
- Part 703 Standard

Notes:
Concentrations of non-detect (below method detection limit) are plotted as 0 µg/L.

Total and dissolved concentrations provided (if available) when at least one concentration is above Part 703 Standard.

ND – non-detect

FIGURE 3b

Dieldrin Trend Plot
All Site Monitoring Wells
(April 2015 – February 2023)

BARTLETT TREE EXPERTS
345 UNION AVENUE
WESTBURY, NY

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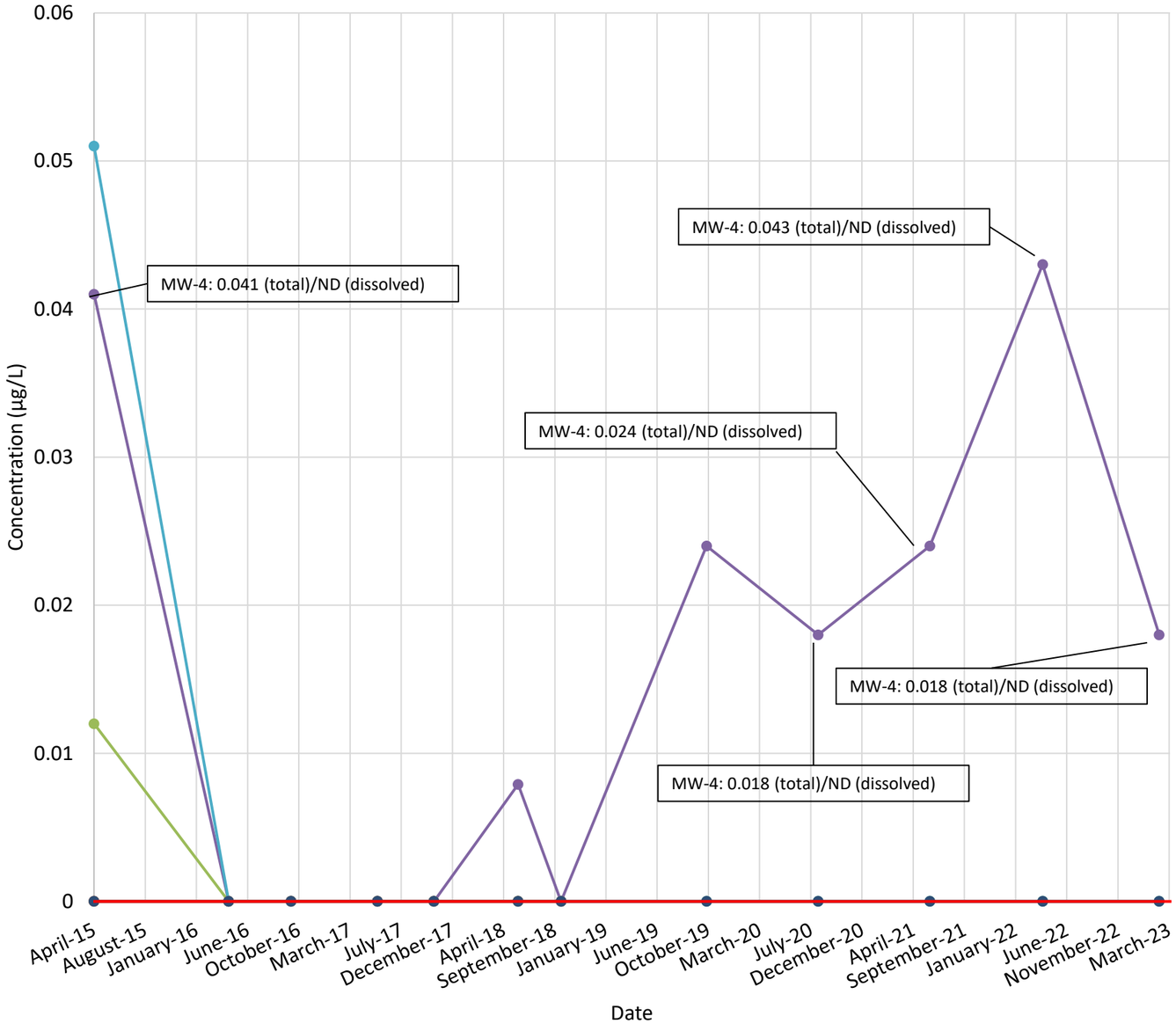
Total Endrin



Legend

- MW-1S
- MW-2S
- MW-3
- MW-4
- MW-5
- MW-1D
- MW-2D
- Part 703 Standard

Notes:
Concentrations of non-detect (below method detection limit) are plotted as 0 µg/L.

Total and dissolved concentrations provided (if available) when at least one concentration is above Part 703 Standard.

ND – non-detect

Value of 0 for NYS Part 703 standard indicates the standard for this constituent is non-detect.

FIGURE 3c

Endrin Trend Plot
All Site Monitoring Wells
(April 2015 – February 2023)

BARTLETT TREE EXPERTS
345 UNION AVENUE
WESTBURY, NY

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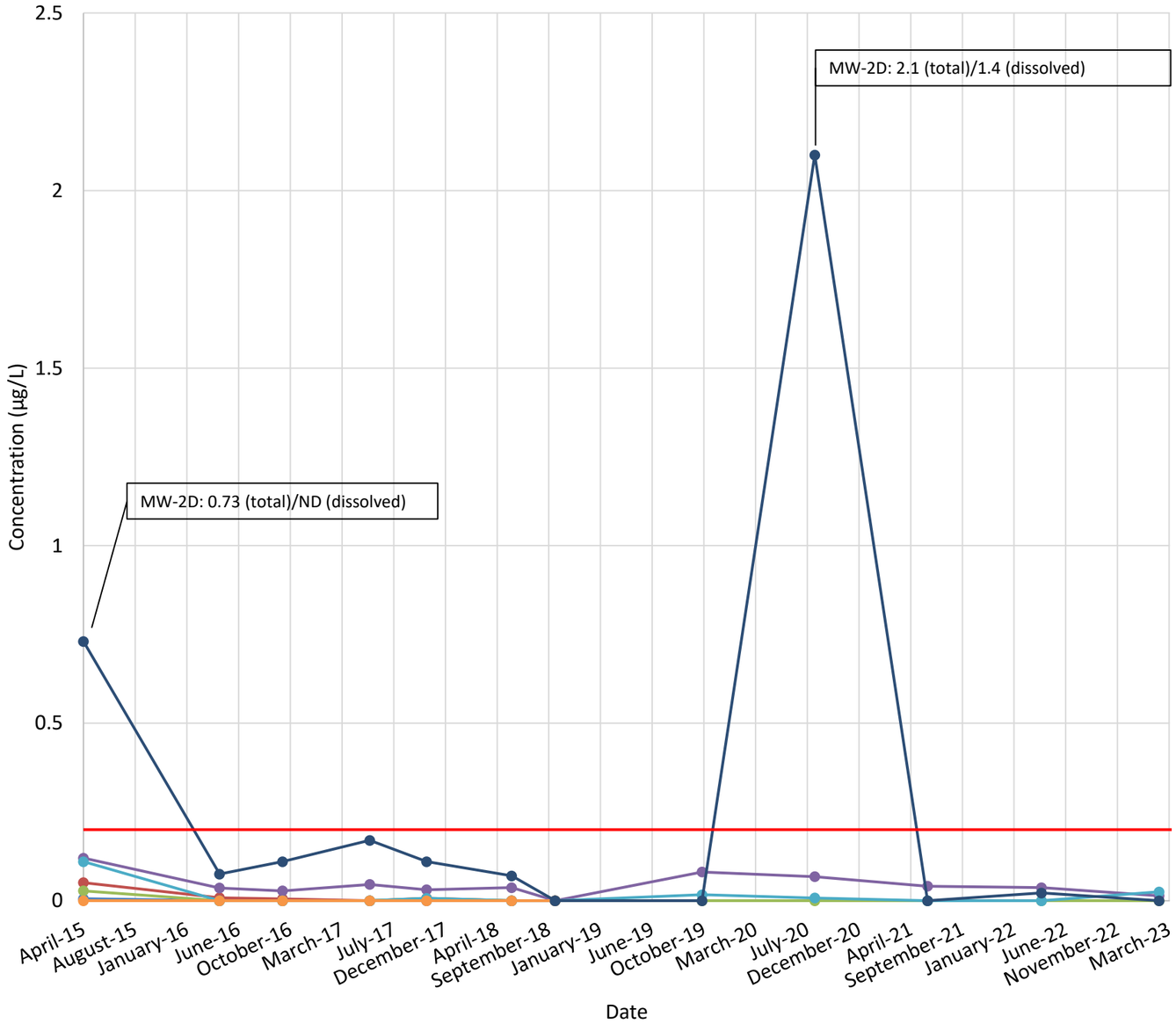
Total 4,4'-DDT



Legend

- MW-1S
- MW-2S
- MW-3
- MW-4
- MW-5
- MW-1D
- MW-2D
- Part 703 Standard

Notes:
Concentrations of non-detect(below method detection limit) are plotted as 0 µg/L.

Total and dissolved concentrations provided (if available) when at least one concentration is above Part 703 Standard.

ND – non-detect

FIGURE 3d

4,4'-DDT Trend Plot
All Site Monitoring Wells
(April 2015 –February 2023)

BARTLETT TREE EXPERTS
345 UNION AVENUE
WESTBURY, NY

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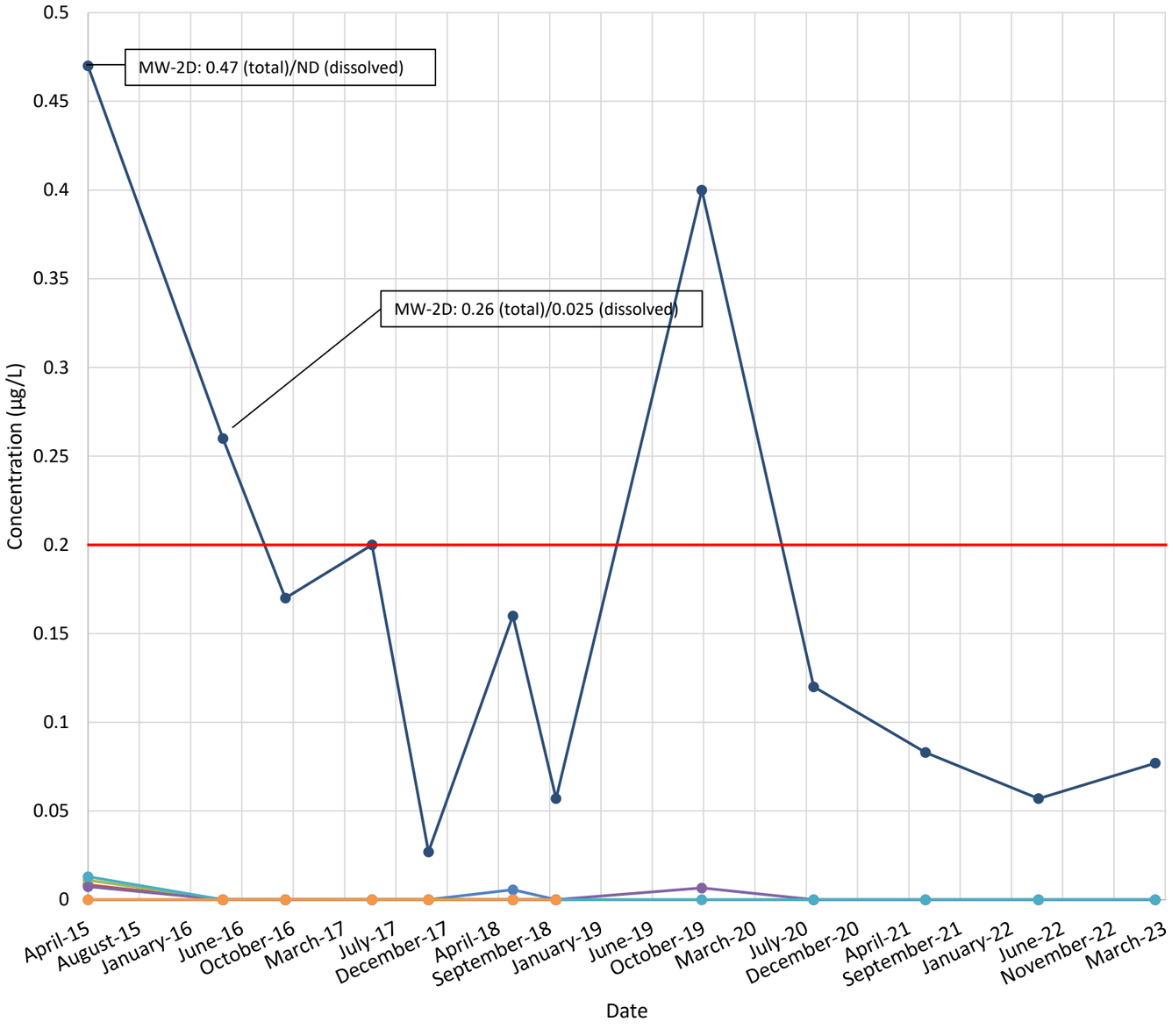
Total 4,4'-DDE



Legend

- MW-1S
- MW-2S
- MW-3
- MW-4
- MW-5
- MW-1D
- MW-2D
- Part 703 Standard

Notes:
Concentrations of non-detect (below method detection limit) are plotted as 0 µg/L.

Total and dissolved concentrations provided (if available) when at least one concentration is above Part 703 Standard.

ND – non-detect

FIGURE 3e

4,4'-DDE Trend Plot
All Site Monitoring Wells
(April 2015 – February 2023)

BARTLETT TREE EXPERTS
345 UNION AVENUE
WESTBURY, NY

Brown AND Caldwell

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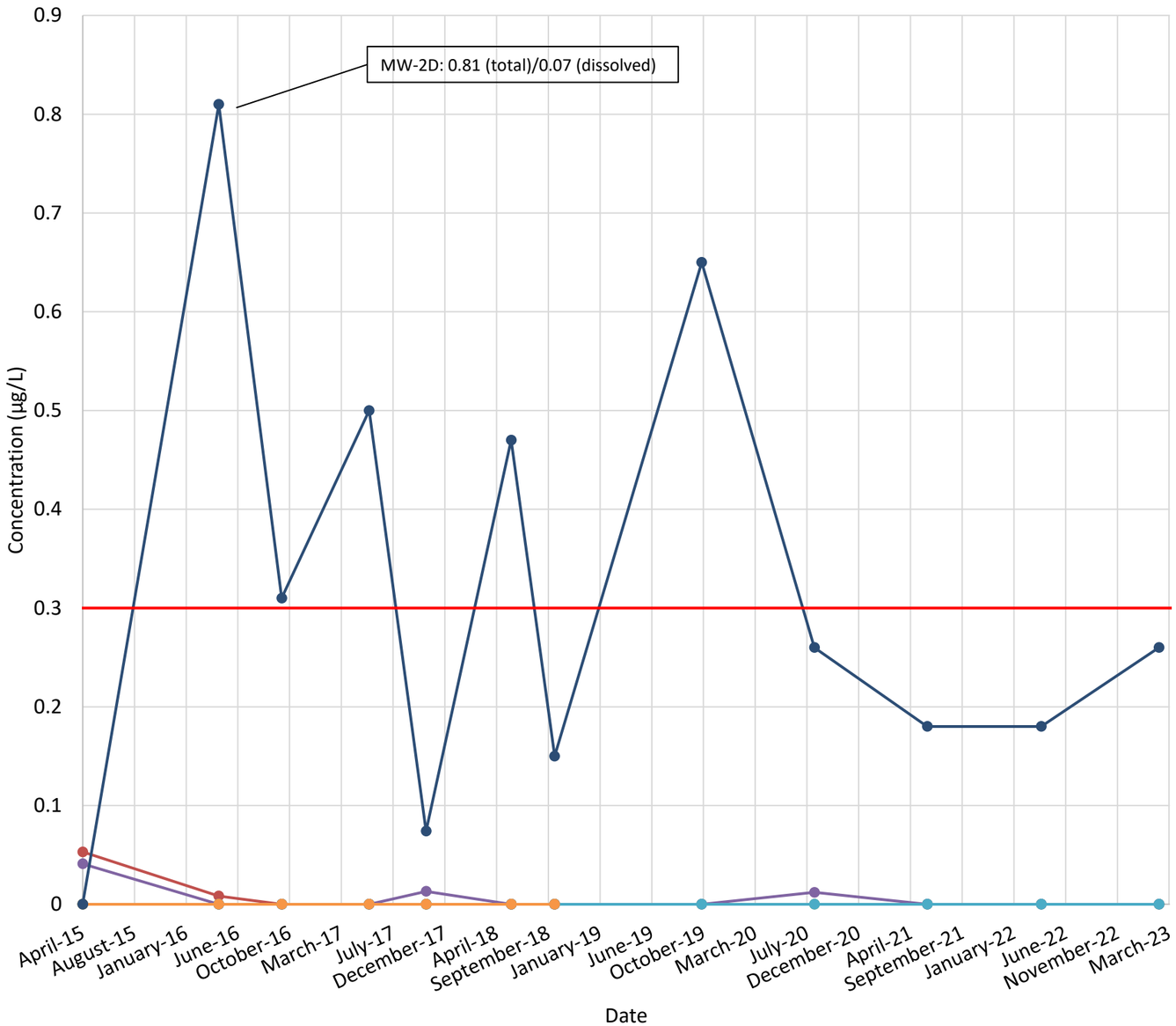
Total 4,4'-DDD



Legend

- MW-1S
- MW-2S
- MW-3
- MW-4
- MW-5
- MW-1D
- MW-2D
- Part 703 Standard

Notes:
Concentrations of non-detect(below method detection limit) are plotted as 0 µg/L.

Total and dissolved concentrations provided (if available) when at least one concentration is above Part 703 Standard.

ND – non-detect

FIGURE 3f

4,4'-DDD Trend Plot
All Site Monitoring Wells
(April 2015 – February 2023)

BARTLETT TREE EXPERTS
345 UNION AVENUE
WESTBURY, NY

Brown AND Caldwell

Tables

TABLE 1
WATER LEVEL MEASUREMENTS
FEBRUARY 2023 GROUNDWATER SAMPLING
BARTLETT TREE COMPANY SITE #0130074

Location ID	Top of Casing Elevation (ft., NGVD)	Screened Interval (ft., BGS)	4/14/2015 Depth to Water (ft., BTOC)	4/14/2015 Water Elevation (ft., NGVD)	4/11/2016 Depth to Water (ft., BTOC)	4/11/2016 Water Elevation (ft., NGVD)	9/26/2016 Depth to Water (ft., BTOC)	9/26/2016 Water Elevation (ft., NGVD)	5/16/2017 Depth to Water (ft., BTOC)	5/16/2017 Water Elevation (ft., NGVD)	10/16/2017 Depth to Water (ft., BTOC)	10/16/2017 Water Elevation (ft., NGVD)	5/30/2018 Depth to Water (ft., BTOC)	5/30/2018 Water Elevation (ft., NGVD)
Shallow Overburden Wells														
MW-1S	104.74	32-47	32.78	71.96	35.03	69.71	36.88	67.86	36.2	68.54	37.58	67.16	35.43	69.31
MW-2S**	103.96	32-47	32.39	71.57	34.5	69.46	36.45	67.51	36.42	67.54	37.34	66.62	34.4	69.56
MW-3*	104.24	32-47	32.62	71.62	34.79	69.45	36.83	67.41	36.35	67.89	37.61	66.63	35.35	68.89
MW-4	104.29	29-44	32.71	71.58	34.88	69.41	36.98	67.31	36.7	67.59	37.82	66.47	35.71	68.58
MW-5	104.06	29-44	32.59	71.47	34.77	69.29	36.83	67.23	36.59	67.47	37.65	66.41	35.55	68.51
Deep Overburden Wells														
MW-1D	104.93	62-72	33.50	71.43	35.19	69.74	38.95	65.98	NA	NA	NA	NA	NA	NA
MW-2D	103.90	62-72	33.23	70.67	35.11	68.79	38.25	65.65	38.02	65.88	39.36	64.54	37.48	66.42

Notes:
- - no measurement
NA - Well dropped from monitoring program.
NGVD - National Geodetic Vertical Datum
BGS - Below Ground Surface
BTOC - Below Top of Casing
* All wells re-surveyed April 1, 2010; elevation revised due to PVC settling.
** MW-2S was damaged prior to the May 30, 2018 water level measurement. Depths to water and/or elevations beginning with May 30, 2018 may be unreliable.
1) Water level not measured due to well inaccessibility.

TABLE 1
WATER LEVEL MEASUREMENTS
FEBRUARY 2023 GROUNDWATER SAMPLING
BARTLETT TREE COMPANY SITE #0130074

Location ID	Top of Casing Elevation (ft., NGVD)	Screened Interval (ft., BGS)	9/24/2018 Depth to Water (ft., BTOC)	9/24/2018 Water Elevation (ft., NGVD)	10/21/2019 Depth to Water (ft., BTOC)	10/21/2019 Water Elevation (ft., NGVD)	8/17/2020 Depth to Water (ft., BTOC)	8/17/2020 Water Elevation (ft., NGVD)	6/14/2021 Depth to Water (ft., BTOC)	6/14/2021 Water Elevation (ft., NGVD)	4/14/2022 Depth to Water (ft., BTOC)	4/14/2022 Water Elevation (ft., NGVD)	2/22/2023 Depth to Water (ft., BTOC)	2/22/2023 Water Elevation (ft., NGVD)
Shallow Overburden Wells														
MW-1S	104.74	32-47	36.19	68.55	-- (1)	-- (1)	NA	NA	NA	NA	NA	NA	NA	NA
MW-2S**	103.96	32-47	36.18	67.78	33.11	70.85	NA	NA	NA	NA	NA	NA	NA	NA
MW-3*	104.24	32-47	36.1	68.14	33.22	71.02	32.88	71.36	32.75	71.49	32.08	72.16	34.44	69.80
MW-4	104.29	29-44	36.5	67.79	33.40	70.89	33.03	71.26	32.94	71.35	32.20	72.09	34.55	69.74
MW-5	104.06	29-44	36.33	67.73	33.28	70.78	32.92	71.14	32.84	71.22	32.05	72.01	34.42	69.64
Deep Overburden Wells														
MW-1D	104.93	62-72	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2D	103.90	62-72	38.5	65.40	34.06	69.84	34.23	69.67	34.26	69.64	32.63	71.27	35.2	68.70

Notes:
-- no measurement
NA - Well dropped from monitoring program.
NGVD - National Geodetic Vertical Datum
BGS - Below Ground Surface
BTOC - Below Top of Casing
* All wells re-surveyed April 1, 2010; elevation revised due to PVC settling.
** MW-2S was damaged prior to the May 30, 2018 water level measurement. Depths to water and/or elevations beginning with May 30, 2018 may be unreliable.
1) Water level not measured due to well inaccessibility.

TABLE 2
PESTICIDES IN GROUNDWATER
ANALYTICAL RESULTS
FEBRUARY 2023 GROUNDWATER SAMPLING
BARTLETT TREE COMPANY SITE NO. 0130074

Constituent	Part 703 Standard [1]	Units	MW-3 Unfiltered 2/22/2023	MW-3 Filtered 2/22/2023	MW-4/DUP-20230222 Unfiltered 2/22/2023	MW-4/DUP-20230222 Unfiltered 2/22/2023	MW-4/DUP-20230222 Filtered 2/22/2023	MW-4/DUP-20230222 Filtered 2/22/2023	MW-5 Unfiltered 2/22/2023	MW-5 Filtered 2/22/2023	MW-2D Unfiltered 2/22/2023	MW-2D Filtered 2/22/2023
Organochlorine Pesticides - Method 8081B												
4,4'-DDD	0.3	µg/L	0.025 U	0.025 U	0.0051 U	0.025 U	0.0051 U	0.0051 U	0.0053 UJ	0.03 UJ	0.26	0.0069 J
4,4'-DDE	0.2	µg/L	0.025 U	0.025 U	0.0051 U	0.025 U	0.0051 U	0.0051 U	0.0053 UJ	0.03 UJ	0.077	0.005 U
4,4'-DDT	0.2	µg/L	0.026 U	0.026 U	0.014 J	0.026 U	0.0053 U	0.0053 U	0.025 J	0.03 UJ	0.047 UJ	0.0052 U
Aldrin	0	µg/L	0.01 U	0.01 U	0.002 U	0.01 U	0.002 U	0.002 U	0.0021 UJ	0.02 UJ	0.0021 U	0.002 U
alpha Endosulfan	NE	µg/L	0.022 U	0.022 U	0.0043 U	0.022 U	0.0044 U	0.0044 U	0.0045 UJ	0.02 UJ	0.0044 U	0.0043 U
beta Endosulfan	NE	µg/L	0.076 U	0.075 U	0.015 U	0.075 U	0.015 U	0.015 U	0.016 UJ	0.04 UJ	0.016 U	0.015 U
BHC, alpha	0.01	µg/L	0.015 U	0.015 U	**0.098**	0.015 U	0.003 U	0.003 U	0.0032 UJ	0.02 UJ	0.0031 U	0.003 U
BHC, beta	0.04	µg/L	0.056 U	0.055 U	0.011 U	0.055 U	0.011 U	0.011 U	0.012 UJ	0.03 UJ	0.011 U	0.011 U
BHC, delta	0.04	µg/L	0.017 U	0.017 U	0.0034 U	0.017 U	0.0034 U	0.0034 U	0.0036 UJ	0.02 UJ	0.0035 U	0.0034 U
BHC, gamma (Lindane)	0.05	µg/L	0.01 U	0.01 U	0.0039 J	0.01 U	0.002 U	0.002 U	0.0021 UJ	0.02 UJ	0.0021 U	0.002 U
Chlordane, alpha	0.05	µg/L	0.015 U	0.015 U	0.017 J	0.022 J	0.003 U	0.003 U	0.0075 UJ	0.0043 UJ	0.021 UJ	0.003 U
Chlordane, beta	0.05	µg/L	0.036 U	0.035 U	0.024 J	0.035 U	0.0071 U	0.0071 U	0.042 UJ	0.0071 UJ	0.013 J	0.007 U
Dieldrin	0.004	µg/L	0.027 U	0.027 U	**0.6**	**0.64**	0.0054 U	0.0054 U	0.032 UJ	0.0053 UJ	**0.014 J**	0.0053 U
Endosulfan sulfate	NE	µg/L	0.03 U	0.029 U	0.012 J	0.029 U	0.0059 U	0.0059 U	0.032 UJ	0.0059 UJ	0.006 U	0.0058 U
Endrin	0	µg/L	0.041 U	0.041 U	**0.018 J**	0.041 U	0.0082 U	0.0082 U	0.032 UJ	0.0082 UJ	0.0084 U	0.0081 U
Endrin aldehyde	5	µg/L	0.1 U	0.1 U	0.02 U	0.1 U	0.02 U	0.02 U	0.11 UJ	0.02 UJ	0.021 U	0.02 U
Endrin ketone	5	µg/L	0.025 U	0.025 U	0.0051 U	0.025 U	0.0051 U	0.0051 U	0.032 UJ	0.005 UJ	0.0052 U	0.005 U
Heptachlor	0.04	µg/L	0.01 U	0.01 U	0.02 UJ	0.01 U	0.002 U	0.002 U	0.021 UJ	0.002 UJ	0.0021 U	0.002 U
Heptachlor epoxide	0.03	µg/L	0.012 U	0.012 U	0.02 UJ	0.012 U	0.0023 U	0.0023 U	0.021 UJ	0.0023 UJ	0.0054 UJ	0.0023 U
Methoxychlor	35	µg/L	0.15 U	0.15 U	0.03 U	0.15 U	0.03 U	0.03 U	0.12 UJ	0.03 UJ	0.031 U	0.03 U
Toxaphene	0.06	µg/L	1.5 U	1.5 U	0.3 U	1.5 U	0.3 U	0.3 U	1.1 UJ	0.3 UJ	0.31 U	<0.30 U

Notes:
U - Constituent was analyzed for, but was not detected. Value shown is the method detection limit (MDL) for the analyzed constituent.
J - Estimated concentration. The result is below the quantitation limit but above the MDL.
UJ - Constituent was analyzed, but was not detected above the sample reporting limit; and the reporting limit is approximate.
NE - Standard not established
Concentrations presented in bold font with solid border exceed the NYS Part 703 Standard
(1) Value of 0 indicates NYS Part 703 standard for this constituent is non-detect.

Attachment A: Data Usability Summary Report

Brown AND Caldwell : LABORATORY DATA VERIFICATION AND VALIDATION FORM

1. PROJECT INFORMATION

Date: 3/7/2023

Report Number: J116613-1
Project Name/Client: Barlett Tree Site
Project Number: 158388
Laboratory: Eurofins Lancaster Laboratories
Project Manager: Brian Taylor
Sampler(s): MWH

2. SAMPLE INFORMATION

Purpose of Sampling: Site monitoring
Sample Date(s): 02/22/2023

Total number of samples: 12

[X]	Groundwater	[ ]	Drinking Water	[ ]	Soil	[ ]	Air	[ ]	Field Blank	[ ]	Trip Blank
[ ]	Surface Water	[ ]	Wastewater	[ ]	Sediment	[ ]	Soil Gas	[ ]	Equipment Blank	[ ]	Other

Analyses Requested: 8081B Pesticides

Laboratory Limit Requested: RL
Method Detection Limit (MDL), Reporting Limit (RL), Practical Quantitation Limit (PQL), etc.)

3. DATA VERIFICATION

[✓] Yes [ ] No [ ] NA **Was the Chain of Custody intact (missing signatures, samples, dates/times, etc.)?**
Notes: No issues to report

[ ] Yes [ ] No [✓] NA **Were custody seals intact on sample bottles and/or coolers as necessary?**
Notes: No issues to report

[✓] Yes [ ] No [ ] NA **Were cooler temperatures within the acceptable range per method requirements?**
Notes: No issues to report

[✓] Yes [ ] No [ ] NA **Were samples physically and chemically preserved properly (headspace, pH, etc.)?**
Notes: No issues to report

[✓] Yes [ ] No [ ] NA **Was the case narrative included, if applicable?**
Notes: No issues to report

[✓] Yes [ ] No [ ] NA **Were all samples labeled, analyzed, and reported correctly?**
If no, call lab immediately to verify. Notes: No issues to report

[✓] Yes [ ] No [ ] NA **Were all samples extracted and/or analyzed within method holding time?**
Notes: No issues to report

[✓] Yes [ ] No [ ] NA **Were appropriate analytes and methods reported?**
Notes: No issues to report

[ ] Yes [ ] No [✓] NA **Were soil and/or sediment concentrations reported as dry weight?**
If no, call PM and lab immediately to verify. Notes: No issues to report

[ ] Yes [ ] No [✓] NA **If analyzed for the following analytes, were the following true for all analytes?**
[ ] Yes [ ] No [ ] NA TOC > DOC [ ] Yes [ ] No [ ] NA Total Metals > Dissolved Metals
[ ] Yes [ ] No [ ] NA COD > BOD [ ] Yes [ ] No [ ] NA TKN > Organic Nitrogen or Ammonia
If no, call lab immediately to verify. Notes: No issues to report

[✓] Yes [ ] No [ ] NA **Were MDLs, PQLs, RLs, and/or dilution factors appropriate?**
If no, call lab immediately to verify. Notes: No issues to report

[✓] Yes [ ] No [ ] NA **For J-flag reports, were all target analytes below the PQL/RL appropriately qualified?**
If no, call lab immediately to verify. Notes: No issues to report

[✓] Yes [ ] No [ ] NA **Were any field duplicates collected?**
Notes: Comment 1

Initials: KMD

Brown AND Caldwell | **LABORATORY DATA VERIFICATION AND VALIDATION FORM**

4. DATA VALIDATION (Refer to data verification and validation guidelines, as applicable) **Report No:** J116613-1

- ☑ **Yes** ☐ **No** **Were surrogate recoveries within acceptable control limits?**
  Notes: Comment 2
- ☐ **Yes** ☑ **No** **Were equipment, field, trip, and/or laboratory blanks free of target analyte detections?**
  Notes: Comment 3
- ☑ **Yes** ☐ **No** **Were any laboratory control samples (LCS) or blank spikes (BS) reported?**
  Notes: No issues to report
- ☑ **Yes** ☐ **No** **Were any matrix spikes/matrix spike duplicates (MS/MSD) reported for project samples?**
  Notes: Comment 4
- ☐ **Yes** ☑ **No** **Were any laboratory duplicates reported for project samples?**
  Notes: No issues to report
- ☑ **Yes** ☐ **No** **Was further laboratory QC provided? (serial dilutions, calibration or internal standards, etc.)**
  Notes: Comment 5

5. COMMENTS AND SUMMARY OF ACTIONS (Attach additional pages if necessary) ☐ **There were no comments for this report.**

Comment 1: DUP-UF-20230222 = MW-4-UF-20230222, DUP-F-20230222 = MW-4-F-20230222

DUP-UF-20230222 is the sample duplicate for MW-4-UF-20230222. All RPDs were within control limits. Both parent and duplicate concentrations were below two times the RL and no data qualification is required.

DUP-F-20230222 is the sample duplicate for MW-4-F-20230222. All RPDs were within control limits. Both parent and duplicate concentrations were below two times the RL with the exception of Dieldrin. No data qualification is required.

Comment 2: The surrogates DCB decachlorobipheny and tetrachloro-m-xylene percent recoveries for samples MW-5-UF-20230222 and MW-5-F-20230222 were below control limits. Associated sample detections are qualified as estimated, J, and non-detections are qualified as estimated with limited detection, UJ, reason code 3L.

Comment 3: The method blank had a detection of BHC, beta and Heptachlor. Associated sample analytes less than five times the method blank detection are qualified as estimated with limited detection, UJ, the MDL is raised to the sample concentration, and the RL is raised, never lowered, to five times the blank detection, reason code 7. Non-detections are not qualified.

Comment 4: The MS/MSD RPDs for sample MW-3-F-20230222 were above control limits for Heptachlor epoxide and Endrin aldehyde. Associated sample detections are qualified as estimated, J, reason code 5.

Comment 5: The primary and confirmation analyses percent difference was above control limits. The lower concentration is considered reportable and is qualified as estimated, J, and non-detections are qualified as estimated with limited detection, UJ, reason code P.

Kelly Donahue — **Signature of Data Validator(s)**

BFT — **Reviewer Initials**

Initials: KMD

6. ANALYTICAL DATA USABILITY ASSESSMENT

The analytical data quality assessment (Sections 1-4) is used evaluate whether analytical data points are scientifically valid and defensible, and of a sufficient level of precision, accuracy, and sensitivity to support project goals. The purpose of this Analytical Data Usability Assessment is to evaluate how any analytical variances noted during the data quality assessment could affect the usability of the data. The following were evaluated and reviewed in the course of conducting this usability assessment:

Report Completeness
Sample Temperatures/Preservation/Holding Times
Initial and Continuing Calibration
Laboratory Method Blanks
Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Recoveries
Internal Standard Recoveries
Surrogate Recoveries
Matrix Spike (MS) and Matrix Spike Duplicates (MSD)
Field Duplicate Precision
Laboratory Duplicate Precision
Reporting Limits
Reported Non-conformances

Samples were collected on February 22, 2023 and submitted for analysis using methods listed below and described in the following documents:
Test Methods for Evaluating Solid Waste – Physical/Chemical Methods, SW-846, EPA Third Edition, November 1986; Update IVB, March 2009, and Methods: Pesticides (8081B)

All data are usable with the following qualifications:

The surrogates DCB decachlorobipheny and tetrachloro-m-xylene percent recoveries for samples MW-5-UF-20230222 and MW-5-F-20230222 were below control limits. The samples are likely biased low.

The method blank had a detection of BHC, beta and Heptachlor. The associated samples MW-2D-UF-20230222, MW-5-UF-20230222 and MW-5-F-20230222 are likely biased high.

The MS/MSD RPDs for sample MW-3-F-20230222 were above control limits for Heptachlor epoxide and Endrin aldehyde. The parent sample MW-3-F-20230222 is likely biased high.

The primary and confirmation analyses percent difference was above control limits for several samples and analytes. The samples are likely biased high.

Validation Qualifiers
The following validation qualifiers may have been applied to the data, as appropriate.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ = The analyte was not detected above the sample reporting limit; and the reporting limit is approximate.
U = The analyte was tested for but was not detected above the sample reporting limit.
R = The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

K. Donahue
Signature of Data Validator(s)

Reviewer Initials BFT

Initials KMD

LABORATORY DATA VERIFICATION AND VALIDATION

Sample Duplicate Comparison

PROJECT INFORMATION

Report Number:	J116613-1	Project Name/Client:	Barlett Tree Site
Project Number:	158388	Laboratory:	Eurofins Lancaster Laboratories
Project Manager:	Brian Taylor	Task/Purpose of Sampling:	Site monitoring

SAMPLE INFORMATION

Parent Sample ID:	MW-4-UF-20230222	Date/Time:	2/22/23 12:39	Matrix:	GW
Duplicate Sample ID:	DUP-UF-20230222	Date/Time:	2/22/23 12:39	Matrix:	GW

Analytes	Unit	Analytical Results[a]		Relative Percent Difference (RPD) Comparison		Reporting Limit (RL) Comparison (If Needed)					Actions Required
						MW-4-UF-20230222		DUP-UF-20230222			
		MW-4-UF-20230222	DUP-UF-20230222	RPD	Inorganics: RPD > 20%? Organics: RPD > 30%?	RL	2x RL	RL	2x RL	If RPD > Control Limit: Is either sample conc. ≥ 2X RL?	
4,4'-DDT	UG/L	0.014	*0.15*	166%	Yes	0.03	0.06	0.15	0.30	NO	No further action required
BHC, alpha	UG/L	0.098	*0.1*	2%	No	0.02	0.04	0.10	0.20		No further action required
BHC, gamma (Lindane)	UG/L	0.0039	*0.1*	185%	Yes	0.02	0.04	0.10	0.20	NO	No further action required
Chlordane, Alpha	UG/L	0.017	0.02	26%	No	0.02	0.04	0.10	0.20		No further action required
Chlordane, Beta	UG/L	0.024	*0.2*	157%	Yes	0.04	0.08	0.20	0.40	NO	No further action required
Dieldrin	UG/L	0.6	0.64	6%	No	0.03	0.06	0.15	0.30		No further action required
Endosulfan sulfate	UG/L	0.012	*0.15*	170%	Yes	0.03	0.06	0.15	0.30	NO	No further action required
Endrin	UG/L	0.018	*0.15*	157%	Yes	0.03	0.06	0.15	0.30	NO	No further action required

[a]Results in red text and italics were below reporting limits. Values are reporting limits for comparison purposes only.

Relative Percent Difference (RPD) is a quantitative indicator of quality assurance and quality control (QA/QC) for repeated measurements (i.e. duplicates) where the outcome is expected to be the same. It is calculated using the following equation:

$$RPD = \left| \frac{x_1 - x_2}{(x_1 + x_2)/2} \right| \times 100$$

Data Verification and Validation Qualifiers and Reason Codes for Level 1 and 2 Reporting For All Chemistry Parameters	
Data Qualifier	**Definition**
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the sample reporting limit; and the reporting limit is approximate.
U	The analyte was analyzed for, but was not detected above the sample reporting limit.
R	The sample detection results is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
UR	The sample non-detection results is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
Reason Code	**Definition**
1	Holding time violation
2	Method blank contamination
3	Surrogate recovery
4	MS/MSD recovery
5	MS/MSD precision outside limits
6	LCS recovery
7	Field blank contamination
8	Field duplicate precision outside limits
9	Other/Preservation deficiencies
A	Absence of supporting QC
B	LCS/LCSD precision outside limits
C	Co-Elution of compounds
D	Lab duplicate/replication precision outside limits
E	Value exceeds liner calibration range
F	Correlation coefficient <0.995, or not done
G	Serial dilution problem
H	High bias
I	Interferences present during analysis
K	DFTPP or BFB tuning problem for VOCs and SVOCs
L	Low bias
M	Interference check sample problem
N	Counting time error (radionuclide chemistry)
O	Post digestion spike outside of 85-115%
P	1C/2C precision outside limits
Q	Initial calibration problem
S	ICV, CCV, or column performance check problem
T	Trace level compound, poor quantitation
V	Second source standard calibration verification problem
W	Detector instability (radionuclide chemistry)
X	Internal standard recovery problem
Y	Initial or continuing calibration blank problem
Z	Retention time problem
	Green Reason Codes Indicate Common Level 2 Validation Qualifiers
	Orange Reason Codes Indicate Uncommon Level 2 Validation Qualifiers
	Blue Reason Codes will RARELY be used during Level 2 Validation, Contact Validation Lead or Laboratory if a blue reason code is used

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Brian F Taylor
Brown and Caldwell
3 Marcus Blvd
Suite 106
Albany, New York 12205

Generated 3/8/2023 10:47:58 AM Revision 2

JOB DESCRIPTION

Bartlett Tree Site, NY

JOB NUMBER

410-116613-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated
3/8/2023 10:47:58 AM
Revision 2

Authorized for release by
Nicole Brown, Project Manager
Nicole.Brown@et.eurofinsus.com
Designee for
Barbara Weyandt, Project Manager
Barbara.Weyandt@et.eurofinsus.com
(717)556-7264

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

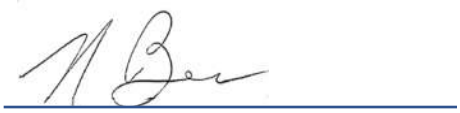


Table of Contents

Definitions/Glossary

Client: Brown and Caldwell
Project/Site: Bartlett Tree Site, NY

Job ID: 410-116613-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

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

Job ID: 410-116613-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Narrative

Job Narrative
410-116613-1

REVISION
The report being provided is a revision of the original report sent on 3/5/2023. The report (revision 2) is being revised in order to remove the F1 flag from the MS MSD for gamma chlordane.

Report Revision History:
Revision 1 - 3/7/2023 - The report (revision 1) was revised to include alpha and gamma chlordane in the reported matrix spike compound list.

Receipt
The samples were received on 2/23/2023 6:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.5°C and 3.5°C

Pesticides
Method 8081B: The DCB Decachlorobiphenyl surrogate recovery for the following samples were outside control limits (low) : MW-5-UF-20230222 (410-116613-5) and MW-5-F-20230222 (410-116613-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B: The DCB Decachlorobiphenyl surrogate recovery for the following samples were outside control limits (low) : MW-5-UF-20230222 (410-116613-5) and MW-5-F-20230222 (410-116613-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

Detection Summary

Client: Brown and Caldwell
Project/Site: Bartlett Tree Site, NY

Job ID: 410-116613-1

Client Sample ID: MW-3-UF-20230222 — Lab Sample ID: 410-116613-1

No Detections.

Client Sample ID: MW-3-F-20230222 — Lab Sample ID: 410-116613-2

No Detections.

Client Sample ID: EB-UF-20230222 — Lab Sample ID: 410-116613-3

No Detections.

Client Sample ID: EB-F-20230222 — Lab Sample ID: 410-116613-4

No Detections.

Client Sample ID: MW-5-UF-20230222 — Lab Sample ID: 410-116613-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
alpha-Chlordane (2C)	0.0075	J B cn	0.021	0.0032	ug/L	1		8081B	Total/NA
p,p'-DDT (2C)	0.025	J cn	0.032	0.0055	ug/L	1		8081B	Total/NA

Client Sample ID: MW-5-F-20230222 — Lab Sample ID: 410-116613-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
alpha-Chlordane (2C)	0.0043	J B cn	0.020	0.0030	ug/L	1		8081B	Dissolved

Client Sample ID: MW-4-UF-20230222 — Lab Sample ID: 410-116613-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
alpha-BHC (2C)	0.098		0.020	0.0030	ug/L	1		8081B	Total/NA
alpha-Chlordane (1C)	0.017	J	0.020	0.0030	ug/L	1		8081B	Total/NA
Dieldrin (2C)	0.60		0.030	0.0054	ug/L	1		8081B	Total/NA
Endosulfan sulfate (1C)	0.012	J	0.030	0.0059	ug/L	1		8081B	Total/NA
Endrin (1C)	0.018	J p	0.030	0.0082	ug/L	1		8081B	Total/NA
gamma-BHC (Lindane) (1C)	0.0039	J	0.020	0.0020	ug/L	1		8081B	Total/NA
gamma-Chlordane (2C)	0.024	J	0.040	0.0071	ug/L	1		8081B	Total/NA
p,p'-DDT (2C)	0.014	J p	0.030	0.0053	ug/L	1		8081B	Total/NA

Client Sample ID: MW-4-F-20230222 — Lab Sample ID: 410-116613-8

No Detections.

Client Sample ID: MW-2D-UF-20230222 — Lab Sample ID: 410-116613-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin (1C)	0.014	J	0.031	0.0055	ug/L	1		8081B	Total/NA
gamma-Chlordane (2C)	0.013	J	0.041	0.0072	ug/L	1		8081B	Total/NA
Heptachlor epoxide (2C)	0.0054	J B	0.021	0.0024	ug/L	1		8081B	Total/NA
p,p'-DDD (2C)	0.26		0.031	0.0052	ug/L	1		8081B	Total/NA
p,p'-DDE (1C)	0.077		0.031	0.0052	ug/L	1		8081B	Total/NA

Client Sample ID: MW-2D-F-20230222 — Lab Sample ID: 410-116613-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
p,p'-DDD (2C)	0.0069	J p	0.030	0.0050	ug/L	1		8081B	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Brown and Caldwell
Project/Site: Bartlett Tree Site, NY

Job ID: 410-116613-1

Client Sample ID: DUP-UF-20230222 — Lab Sample ID: 410-116613-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
alpha-Chlordane (1C)	0.022	J	0.10	0.015	ug/L	5		8081B	Total/NA
Dieldrin (1C)	0.64		0.15	0.027	ug/L	5		8081B	Total/NA

Client Sample ID: DUP-F-20230222 — Lab Sample ID: 410-116613-12

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-3-UF-20230222

Lab Sample ID: 410-116613-1

Date Collected: 02/22/23 11:02

Matrix: Water

Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	ND		0.10	0.010	ug/L		03/01/23 08:04	03/02/23 17:04	5
alpha-BHC (1C)	ND		0.10	0.015	ug/L		03/01/23 08:04	03/02/23 17:04	5
alpha-Chlordane (1C)	ND		0.10	0.015	ug/L		03/01/23 08:04	03/02/23 17:04	5
beta-BHC (1C)	ND		0.15	0.056	ug/L		03/01/23 08:04	03/02/23 17:04	5
delta-BHC (2C)	ND		0.10	0.017	ug/L		03/01/23 08:04	03/02/23 17:04	5
Dieldrin (1C)	ND		0.15	0.027	ug/L		03/01/23 08:04	03/02/23 17:04	5
Endosulfan I (1C)	ND		0.10	0.022	ug/L		03/01/23 08:04	03/02/23 17:04	5
Endosulfan II (1C)	ND		0.20	0.076	ug/L		03/01/23 08:04	03/02/23 17:04	5
Endosulfan sulfate (1C)	ND		0.15	0.030	ug/L		03/01/23 08:04	03/02/23 17:04	5
Endrin (1C)	ND		0.15	0.041	ug/L		03/01/23 08:04	03/02/23 17:04	5
Endrin aldehyde (1C)	ND		0.51	0.10	ug/L		03/01/23 08:04	03/02/23 17:04	5
Endrin ketone (1C)	ND		0.15	0.025	ug/L		03/01/23 08:04	03/02/23 17:04	5
gamma-BHC (Lindane) (1C)	ND		0.10	0.010	ug/L		03/01/23 08:04	03/02/23 17:04	5
gamma-Chlordane (2C)	ND		0.20	0.036	ug/L		03/01/23 08:04	03/02/23 17:04	5
Heptachlor (1C)	ND		0.10	0.010	ug/L		03/01/23 08:04	03/02/23 17:04	5
Heptachlor epoxide (1C)	ND		0.10	0.012	ug/L		03/01/23 08:04	03/02/23 17:04	5
Methoxychlor (1C)	ND		0.56	0.15	ug/L		03/01/23 08:04	03/02/23 17:04	5
Toxaphene (1C)	ND		5.1	1.5	ug/L		03/01/23 08:04	03/02/23 17:04	5
p,p'-DDD (1C)	ND		0.15	0.025	ug/L		03/01/23 08:04	03/02/23 17:04	5
p,p'-DDE (1C)	ND		0.15	0.025	ug/L		03/01/23 08:04	03/02/23 17:04	5
p,p'-DDT (1C)	ND		0.15	0.026	ug/L		03/01/23 08:04	03/02/23 17:04	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*87*		*20 - 149*	*03/01/23 08:04*	*03/02/23 17:04*	*5*
DCB Decachlorobiphenyl (Surr) (2C)	*83*		*20 - 149*	*03/01/23 08:04*	*03/02/23 17:04*	*5*
Tetrachloro-m-xylene (Surr) (1C)	*79*		*20 - 129*	*03/01/23 08:04*	*03/02/23 17:04*	*5*
Tetrachloro-m-xylene (Surr) (2C)	*77*		*20 - 129*	*03/01/23 08:04*	*03/02/23 17:04*	*5*

Client Sample ID: MW-3-F-20230222

Lab Sample ID: 410-116613-2

Date Collected: 02/22/23 11:07

Matrix: Water

Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	ND		0.10	0.010	ug/L		03/01/23 08:04	03/02/23 17:48	5
alpha-BHC (1C)	ND		0.10	0.015	ug/L		03/01/23 08:04	03/02/23 17:48	5
alpha-Chlordane (1C)	ND		0.10	0.015	ug/L		03/01/23 08:04	03/02/23 17:48	5
beta-BHC (1C)	ND		0.15	0.055	ug/L		03/01/23 08:04	03/02/23 17:48	5
delta-BHC (1C)	ND		0.10	0.017	ug/L		03/01/23 08:04	03/02/23 17:48	5
Dieldrin (1C)	ND		0.15	0.027	ug/L		03/01/23 08:04	03/02/23 17:48	5
Endosulfan I (1C)	ND		0.10	0.022	ug/L		03/01/23 08:04	03/02/23 17:48	5
Endosulfan II (1C)	ND		0.20	0.075	ug/L		03/01/23 08:04	03/02/23 17:48	5
Endosulfan sulfate (1C)	ND		0.15	0.029	ug/L		03/01/23 08:04	03/02/23 17:48	5
Endrin (1C)	ND		0.15	0.041	ug/L		03/01/23 08:04	03/02/23 17:48	5
Endrin aldehyde (1C)	ND	UJ RC: 5	0.50	0.10	ug/L		03/01/23 08:04	03/02/23 17:48	5
Endrin ketone (1C)	ND		0.15	0.025	ug/L		03/01/23 08:04	03/02/23 17:48	5
gamma-BHC (Lindane) (1C)	ND		0.10	0.010	ug/L		03/01/23 08:04	03/02/23 17:48	5
gamma-Chlordane (2C)	ND		0.20	0.035	ug/L		03/01/23 08:04	03/02/23 17:48	5
Heptachlor (1C)	ND		0.10	0.010	ug/L		03/01/23 08:04	03/02/23 17:48	5
Heptachlor epoxide (1C)	ND	UJ RC: 5	0.10	0.012	ug/L		03/01/23 08:04	03/02/23 17:48	5

Client Sample ID: MW-3-F-20230222

Lab Sample ID: 410-116613-2

Date Collected: 02/22/23 11:07

Matrix: Water

Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor (1C)	ND		0.55	0.15	ug/L		03/01/23 08:04	03/02/23 17:48	5
Toxaphene (1C)	ND		5.0	1.5	ug/L		03/01/23 08:04	03/02/23 17:48	5
p,p'-DDD (1C)	ND		0.15	0.025	ug/L		03/01/23 08:04	03/02/23 17:48	5
p,p'-DDE (1C)	ND		0.15	0.025	ug/L		03/01/23 08:04	03/02/23 17:48	5
p,p'-DDT (1C)	ND		0.15	0.026	ug/L		03/01/23 08:04	03/02/23 17:48	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*74*		*20 - 149*	*03/01/23 08:04*	*03/02/23 17:48*	*5*
DCB Decachlorobiphenyl (Surr) (2C)	*72*		*20 - 149*	*03/01/23 08:04*	*03/02/23 17:48*	*5*
Tetrachloro-m-xylene (Surr) (1C)	*64*		*20 - 129*	*03/01/23 08:04*	*03/02/23 17:48*	*5*
Tetrachloro-m-xylene (Surr) (2C)	*63*		*20 - 129*	*03/01/23 08:04*	*03/02/23 17:48*	*5*

Client Sample ID: EB-UF-20230222

Lab Sample ID: 410-116613-3

Date Collected: 02/22/23 11:45

Matrix: Water

Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	ND		0.021	0.0021	ug/L		03/01/23 08:04	03/02/23 18:02	1
alpha-BHC (1C)	ND		0.021	0.0031	ug/L		03/01/23 08:04	03/02/23 18:02	1
alpha-Chlordane (1C)	ND		0.021	0.0031	ug/L		03/01/23 08:04	03/02/23 18:02	1
beta-BHC (1C)	ND		0.031	0.011	ug/L		03/01/23 08:04	03/02/23 18:02	1
delta-BHC (1C)	ND		0.021	0.0035	ug/L		03/01/23 08:04	03/02/23 18:02	1
Dieldrin (1C)	ND		0.031	0.0055	ug/L		03/01/23 08:04	03/02/23 18:02	1
Endosulfan I (1C)	ND		0.021	0.0045	ug/L		03/01/23 08:04	03/02/23 18:02	1
Endosulfan II (1C)	ND		0.042	0.016	ug/L		03/01/23 08:04	03/02/23 18:02	1
Endosulfan sulfate (1C)	ND		0.031	0.0060	ug/L		03/01/23 08:04	03/02/23 18:02	1
Endrin (1C)	ND		0.031	0.0084	ug/L		03/01/23 08:04	03/02/23 18:02	1
Endrin aldehyde (1C)	ND		0.10	0.021	ug/L		03/01/23 08:04	03/02/23 18:02	1
Endrin ketone (1C)	ND		0.031	0.0052	ug/L		03/01/23 08:04	03/02/23 18:02	1
gamma-BHC (Lindane) (1C)	ND		0.021	0.0021	ug/L		03/01/23 08:04	03/02/23 18:02	1
gamma-Chlordane (2C)	ND		0.042	0.0073	ug/L		03/01/23 08:04	03/02/23 18:02	1
Heptachlor (1C)	ND		0.021	0.0021	ug/L		03/01/23 08:04	03/02/23 18:02	1
Heptachlor epoxide (1C)	ND		0.021	0.0024	ug/L		03/01/23 08:04	03/02/23 18:02	1
Methoxychlor (1C)	ND		0.11	0.031	ug/L		03/01/23 08:04	03/02/23 18:02	1
Toxaphene (1C)	ND		1.0	0.31	ug/L		03/01/23 08:04	03/02/23 18:02	1
p,p'-DDD (1C)	ND		0.031	0.0052	ug/L		03/01/23 08:04	03/02/23 18:02	1
p,p'-DDE (1C)	ND		0.031	0.0052	ug/L		03/01/23 08:04	03/02/23 18:02	1
p,p'-DDT (1C)	ND		0.031	0.0054	ug/L		03/01/23 08:04	03/02/23 18:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*56*		*20 - 149*	*03/01/23 08:04*	*03/02/23 18:02*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*55*		*20 - 149*	*03/01/23 08:04*	*03/02/23 18:02*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*71*		*20 - 129*	*03/01/23 08:04*	*03/02/23 18:02*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*72*		*20 - 129*	*03/01/23 08:04*	*03/02/23 18:02*	*1*

Client Sample ID: EB-F-20230222

Lab Sample ID: 410-116613-4

Date Collected: 02/22/23 11:50
Matrix: Water
Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	ND		0.021	0.0021	ug/L		03/01/23 08:04	03/02/23 18:17	1
alpha-BHC (1C)	ND		0.021	0.0031	ug/L		03/01/23 08:04	03/02/23 18:17	1
alpha-Chlordane (1C)	ND		0.021	0.0031	ug/L		03/01/23 08:04	03/02/23 18:17	1
beta-BHC (1C)	ND		0.031	0.011	ug/L		03/01/23 08:04	03/02/23 18:17	1
delta-BHC (1C)	ND		0.021	0.0035	ug/L		03/01/23 08:04	03/02/23 18:17	1
Dieldrin (1C)	ND		0.031	0.0055	ug/L		03/01/23 08:04	03/02/23 18:17	1
Endosulfan I (1C)	ND		0.021	0.0045	ug/L		03/01/23 08:04	03/02/23 18:17	1
Endosulfan II (1C)	ND		0.042	0.016	ug/L		03/01/23 08:04	03/02/23 18:17	1
Endosulfan sulfate (1C)	ND		0.031	0.0061	ug/L		03/01/23 08:04	03/02/23 18:17	1
Endrin (1C)	ND		0.031	0.0085	ug/L		03/01/23 08:04	03/02/23 18:17	1
Endrin aldehyde (1C)	ND		0.10	0.021	ug/L		03/01/23 08:04	03/02/23 18:17	1
Endrin ketone (1C)	ND		0.031	0.0052	ug/L		03/01/23 08:04	03/02/23 18:17	1
gamma-BHC (Lindane) (1C)	ND		0.021	0.0021	ug/L		03/01/23 08:04	03/02/23 18:17	1
gamma-Chlordane (2C)	ND		0.042	0.0073	ug/L		03/01/23 08:04	03/02/23 18:17	1
Heptachlor (1C)	ND		0.021	0.0021	ug/L		03/01/23 08:04	03/02/23 18:17	1
Heptachlor epoxide (1C)	ND		0.021	0.0024	ug/L		03/01/23 08:04	03/02/23 18:17	1
Methoxychlor (1C)	ND		0.11	0.031	ug/L		03/01/23 08:04	03/02/23 18:17	1
Toxaphene (1C)	ND		1.0	0.31	ug/L		03/01/23 08:04	03/02/23 18:17	1
p,p'-DDD (1C)	ND		0.031	0.0052	ug/L		03/01/23 08:04	03/02/23 18:17	1
p,p'-DDE (1C)	ND		0.031	0.0052	ug/L		03/01/23 08:04	03/02/23 18:17	1
p,p'-DDT (1C)	ND		0.031	0.0054	ug/L		03/01/23 08:04	03/02/23 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*61*		*20 - 149*	*03/01/23 08:04*	*03/02/23 18:17*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*61*		*20 - 149*	*03/01/23 08:04*	*03/02/23 18:17*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*72*		*20 - 129*	*03/01/23 08:04*	*03/02/23 18:17*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*70*		*20 - 129*	*03/01/23 08:04*	*03/02/23 18:17*	*1*

Client Sample ID: MW-5-UF-20230222

Lab Sample ID: 410-116613-5

Date Collected: 02/22/23 11:57
Matrix: Water
Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	ND	UJ RC: 3L	0.021	0.0021	ug/L		03/01/23 08:04	03/02/23 18:32	1
alpha-BHC (1C)	ND	UJ RC: 3L	0.021	0.0032	ug/L		03/01/23 08:04	03/02/23 18:32	1
alpha-Chlordane (2C)	ND	UJ RC: 3L, 7	0.0795	0.0075	ug/L		03/01/23 08:04	03/02/23 18:32	1
beta-BHC (1C)	ND	UJ RC: 3L	0.032	0.012	ug/L		03/01/23 08:04	03/02/23 18:32	1
delta-BHC (1C)	ND	UJ RC: 3L	0.021	0.0036	ug/L		03/01/23 08:04	03/02/23 18:32	1
Dieldrin (1C)	ND	UJ RC: 3L	0.032	0.0056	ug/L		03/01/23 08:04	03/02/23 18:32	1
Endosulfan I (1C)	ND	UJ RC: 3L	0.021	0.0045	ug/L		03/01/23 08:04	03/02/23 18:32	1
Endosulfan II (1C)	ND	UJ RC: 3L	0.042	0.016	ug/L		03/01/23 08:04	03/02/23 18:32	1
Endosulfan sulfate (1C)	ND	UJ RC: 3L	0.032	0.0061	ug/L		03/01/23 08:04	03/02/23 18:32	1
Endrin (1C)	ND	UJ RC: 3L	0.032	0.0085	ug/L		03/01/23 08:04	03/02/23 18:32	1
Endrin aldehyde (1C)	ND	UJ RC: 3L	0.11	0.021	ug/L		03/01/23 08:04	03/02/23 18:32	1
Endrin ketone (1C)	ND	UJ RC: 3L	0.032	0.0053	ug/L		03/01/23 08:04	03/02/23 18:32	1
gamma-BHC (Lindane) (1C)	ND	UJ RC: 3L	0.021	0.0021	ug/L		03/01/23 08:04	03/02/23 18:32	1
gamma-Chlordane (2C)	ND	UJ RC: 3L	0.042	0.0074	ug/L		03/01/23 08:04	03/02/23 18:32	1
Heptachlor (1C)	ND	UJ RC: 3L	0.021	0.0021	ug/L		03/01/23 08:04	03/02/23 18:32	1
Heptachlor epoxide (1C)	ND	UJ RC: 3L	0.021	0.0024	ug/L		03/01/23 08:04	03/02/23 18:32	1

Client Sample ID: MW-5-UF-20230222

Lab Sample ID: 410-116613-5

Date Collected: 02/22/23 11:57

Matrix: Water

Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor (1C)	ND	UJ RC: 3L	0.12	0.032	ug/L		03/01/23 08:04	03/02/23 18:32	1
Toxaphene (1C)	ND	UJ RC: 3L	1.1	0.32	ug/L		03/01/23 08:04	03/02/23 18:32	1
p,p'-DDD (2C)	ND	UJ RC: 3L	0.032	0.0053	ug/L		03/01/23 08:04	03/02/23 18:32	1
p,p'-DDE (1C)	ND	UJ RC: 3L	0.032	0.0053	ug/L		03/01/23 08:04	03/02/23 18:32	1
p,p'-DDT (2C)	**0.025**	J RC: 3L	0.032	0.0055	ug/L		03/01/23 08:04	03/02/23 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*17*	*S1- cn*	*20 - 149*	*03/01/23 08:04*	*03/02/23 18:32*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*18*	*S1- cn*	*20 - 149*	*03/01/23 08:04*	*03/02/23 18:32*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*49*	*cn*	*20 - 129*	*03/01/23 08:04*	*03/02/23 18:32*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*49*	*cn*	*20 - 129*	*03/01/23 08:04*	*03/02/23 18:32*	*1*

Client Sample ID: MW-5-F-20230222

Lab Sample ID: 410-116613-6

Date Collected: 02/22/23 12:02

Matrix: Water

Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	ND	UJ RC: 3L	0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 18:46	1
alpha-BHC (1C)	ND	UJ RC: 3L	0.020	0.0030	ug/L		03/01/23 08:04	03/02/23 18:46	1
alpha-Chlordane (2C)	ND	UJ RC: 3L, 7	0.0795	0.0043	ug/L		03/01/23 08:04	03/02/23 18:46	1
beta-BHC (1C)	ND	UJ RC: 3L	0.030	0.011	ug/L		03/01/23 08:04	03/02/23 18:46	1
delta-BHC (1C)	ND	UJ RC: 3L	0.020	0.0034	ug/L		03/01/23 08:04	03/02/23 18:46	1
Dieldrin (1C)	ND	UJ RC: 3L	0.030	0.0053	ug/L		03/01/23 08:04	03/02/23 18:46	1
Endosulfan I (1C)	ND	UJ RC: 3L	0.020	0.0043	ug/L		03/01/23 08:04	03/02/23 18:46	1
Endosulfan II (1C)	ND	UJ RC: 3L	0.040	0.015	ug/L		03/01/23 08:04	03/02/23 18:46	1
Endosulfan sulfate (1C)	ND	UJ RC: 3L	0.030	0.0059	ug/L		03/01/23 08:04	03/02/23 18:46	1
Endrin (1C)	ND	UJ RC: 3L	0.030	0.0082	ug/L		03/01/23 08:04	03/02/23 18:46	1
Endrin aldehyde (1C)	ND	UJ RC: 3L	0.10	0.020	ug/L		03/01/23 08:04	03/02/23 18:46	1
Endrin ketone (1C)	ND	UJ RC: 3L	0.030	0.0050	ug/L		03/01/23 08:04	03/02/23 18:46	1
gamma-BHC (Lindane) (1C)	ND	UJ RC: 3L	0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 18:46	1
gamma-Chlordane (2C)	ND	UJ RC: 3L	0.040	0.0071	ug/L		03/01/23 08:04	03/02/23 18:46	1
Heptachlor (1C)	ND	UJ RC: 3L	0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 18:46	1
Heptachlor epoxide (1C)	ND	UJ RC: 3L	0.020	0.0023	ug/L		03/01/23 08:04	03/02/23 18:46	1
Methoxychlor (1C)	ND	UJ RC: 3L	0.11	0.030	ug/L		03/01/23 08:04	03/02/23 18:46	1
Toxaphene (1C)	ND	UJ RC: 3L	1.0	0.30	ug/L		03/01/23 08:04	03/02/23 18:46	1
p,p'-DDD (1C)	ND	UJ RC: 3L	0.030	0.0050	ug/L		03/01/23 08:04	03/02/23 18:46	1
p,p'-DDE (1C)	ND	UJ RC: 3L	0.030	0.0050	ug/L		03/01/23 08:04	03/02/23 18:46	1
p,p'-DDT (1C)	ND	UJ RC: 3L	0.030	0.0052	ug/L		03/01/23 08:04	03/02/23 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*14*	*S1- cn*	*20 - 149*	*03/01/23 08:04*	*03/02/23 18:46*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*14*	*S1- cn*	*20 - 149*	*03/01/23 08:04*	*03/02/23 18:46*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*46*	*cn*	*20 - 129*	*03/01/23 08:04*	*03/02/23 18:46*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*46*	*cn*	*20 - 129*	*03/01/23 08:04*	*03/02/23 18:46*	*1*

Client Sample ID: MW-4-UF-20230222

Lab Sample ID: 410-116613-7

Date Collected: 02/22/23 12:39

Matrix: Water

Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	ND		0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 19:01	1
alpha-BHC (2C)	**0.098**		0.020	0.0030	ug/L		03/01/23 08:04	03/02/23 19:01	1
alpha-Chlordane (1C)	**0.017**	**J**	0.020	0.0030	ug/L		03/01/23 08:04	03/02/23 19:01	1
beta-BHC (2C)	ND		0.030	0.011	ug/L		03/01/23 08:04	03/02/23 19:01	1
delta-BHC (2C)	ND		0.020	0.0034	ug/L		03/01/23 08:04	03/02/23 19:01	1
Dieldrin (2C)	**0.60**		0.030	0.0054	ug/L		03/01/23 08:04	03/02/23 19:01	1
Endosulfan I (2C)	ND		0.020	0.0043	ug/L		03/01/23 08:04	03/02/23 19:01	1
Endosulfan II (1C)	ND		0.040	0.015	ug/L		03/01/23 08:04	03/02/23 19:01	1
Endosulfan sulfate (1C)	**0.012**	**J**	0.030	0.0059	ug/L		03/01/23 08:04	03/02/23 19:01	1
Endrin (1C)	**0.018**	J RC: P	0.030	0.0082	ug/L		03/01/23 08:04	03/02/23 19:01	1
Endrin aldehyde (1C)	ND		0.10	0.020	ug/L		03/01/23 08:04	03/02/23 19:01	1
Endrin ketone (2C)	ND		0.030	0.0051	ug/L		03/01/23 08:04	03/02/23 19:01	1
gamma-BHC (Lindane) (1C)	**0.0039**	**J**	0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 19:01	1
gamma-Chlordane (2C)	**0.024**	**J**	0.040	0.0071	ug/L		03/01/23 08:04	03/02/23 19:01	1
Heptachlor (1C)	ND	UJ RC: P	0.020	0.020	ug/L		03/01/23 08:04	03/02/23 19:01	1
Heptachlor epoxide (2C)	ND	UJ RC: P	0.020	0.020	ug/L		03/01/23 08:04	03/02/23 19:01	1
Methoxychlor (1C)	ND		0.11	0.030	ug/L		03/01/23 08:04	03/02/23 19:01	1
Toxaphene (1C)	ND		1.0	0.30	ug/L		03/01/23 08:04	03/02/23 19:01	1
p,p'-DDD (2C)	ND		0.030	0.0051	ug/L		03/01/23 08:04	03/02/23 19:01	1
p,p'-DDE (1C)	ND		0.030	0.0051	ug/L		03/01/23 08:04	03/02/23 19:01	1
p,p'-DDT (2C)	**0.014**	J RC: P	0.030	0.0053	ug/L		03/01/23 08:04	03/02/23 19:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*58*		*20 - 149*	*03/01/23 08:04*	*03/02/23 19:01*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*56*		*20 - 149*	*03/01/23 08:04*	*03/02/23 19:01*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*63*		*20 - 129*	*03/01/23 08:04*	*03/02/23 19:01*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*57*		*20 - 129*	*03/01/23 08:04*	*03/02/23 19:01*	*1*

Client Sample ID: MW-4-F-20230222

Lab Sample ID: 410-116613-8

Date Collected: 02/22/23 12:44

Matrix: Water

Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	ND		0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 19:15	1
alpha-BHC (1C)	ND		0.020	0.0030	ug/L		03/01/23 08:04	03/02/23 19:15	1
alpha-Chlordane (1C)	ND		0.020	0.0030	ug/L		03/01/23 08:04	03/02/23 19:15	1
beta-BHC (2C)	ND		0.030	0.011	ug/L		03/01/23 08:04	03/02/23 19:15	1
delta-BHC (1C)	ND		0.020	0.0034	ug/L		03/01/23 08:04	03/02/23 19:15	1
Dieldrin (1C)	ND		0.030	0.0054	ug/L		03/01/23 08:04	03/02/23 19:15	1
Endosulfan I (1C)	ND		0.020	0.0044	ug/L		03/01/23 08:04	03/02/23 19:15	1
Endosulfan II (1C)	ND		0.041	0.015	ug/L		03/01/23 08:04	03/02/23 19:15	1
Endosulfan sulfate (1C)	ND		0.030	0.0059	ug/L		03/01/23 08:04	03/02/23 19:15	1
Endrin (1C)	ND		0.030	0.0082	ug/L		03/01/23 08:04	03/02/23 19:15	1
Endrin aldehyde (1C)	ND		0.10	0.020	ug/L		03/01/23 08:04	03/02/23 19:15	1
Endrin ketone (1C)	ND		0.030	0.0051	ug/L		03/01/23 08:04	03/02/23 19:15	1
gamma-BHC (Lindane) (1C)	ND		0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 19:15	1
gamma-Chlordane (1C)	ND		0.041	0.0071	ug/L		03/01/23 08:04	03/02/23 19:15	1
Heptachlor (1C)	ND		0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 19:15	1
Heptachlor epoxide (1C)	ND		0.020	0.0023	ug/L		03/01/23 08:04	03/02/23 19:15	1

Client Sample ID: MW-4-F-20230222

Lab Sample ID: 410-116613-8

Date Collected: 02/22/23 12:44
Matrix: Water
Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor (1C)	ND		0.11	0.030	ug/L		03/01/23 08:04	03/02/23 19:15	1
Toxaphene (1C)	ND		1.0	0.30	ug/L		03/01/23 08:04	03/02/23 19:15	1
p,p'-DDD (1C)	ND		0.030	0.0051	ug/L		03/01/23 08:04	03/02/23 19:15	1
p,p'-DDE (1C)	ND		0.030	0.0051	ug/L		03/01/23 08:04	03/02/23 19:15	1
p,p'-DDT (1C)	ND		0.030	0.0053	ug/L		03/01/23 08:04	03/02/23 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*67*		*20 - 149*	*03/01/23 08:04*	*03/02/23 19:15*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*67*		*20 - 149*	*03/01/23 08:04*	*03/02/23 19:15*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*64*		*20 - 129*	*03/01/23 08:04*	*03/02/23 19:15*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*62*		*20 - 129*	*03/01/23 08:04*	*03/02/23 19:15*	*1*

Client Sample ID: MW-2D-UF-20230222

Lab Sample ID: 410-116613-9

Date Collected: 02/22/23 13:33
Matrix: Water
Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	ND		0.021	0.0021	ug/L		03/01/23 08:04	03/02/23 19:30	1
alpha-BHC (1C)	ND		0.021	0.0031	ug/L		03/01/23 08:04	03/02/23 19:30	1
alpha-Chlordane (1C)	ND	UJ RC: P	0.021	0.021	ug/L		03/01/23 08:04	03/02/23 19:30	1
beta-BHC (1C)	ND		0.031	0.011	ug/L		03/01/23 08:04	03/02/23 19:30	1
delta-BHC (1C)	ND		0.021	0.0035	ug/L		03/01/23 08:04	03/02/23 19:30	1
Dieldrin (1C)	**0.014**	**J**	0.031	0.0055	ug/L		03/01/23 08:04	03/02/23 19:30	1
Endosulfan I (1C)	ND		0.021	0.0044	ug/L		03/01/23 08:04	03/02/23 19:30	1
Endosulfan II (1C)	ND		0.041	0.016	ug/L		03/01/23 08:04	03/02/23 19:30	1
Endosulfan sulfate (2C)	ND		0.031	0.0060	ug/L		03/01/23 08:04	03/02/23 19:30	1
Endrin (1C)	ND		0.031	0.0084	ug/L		03/01/23 08:04	03/02/23 19:30	1
Endrin aldehyde (1C)	ND		0.10	0.021	ug/L		03/01/23 08:04	03/02/23 19:30	1
Endrin ketone (2C)	ND		0.031	0.0052	ug/L		03/01/23 08:04	03/02/23 19:30	1
gamma-BHC (Lindane) (1C)	ND		0.021	0.0021	ug/L		03/01/23 08:04	03/02/23 19:30	1
gamma-Chlordane (2C)	**0.013**	**J**	0.041	0.0072	ug/L		03/01/23 08:04	03/02/23 19:30	1
Heptachlor (1C)	ND		0.021	0.0021	ug/L		03/01/23 08:04	03/02/23 19:30	1
Heptachlor epoxide (2C)	ND	UJ RC: 7	0.0795	0.054	ug/L		03/01/23 08:04	03/02/23 19:30	1
Methoxychlor (1C)	ND		0.11	0.031	ug/L		03/01/23 08:04	03/02/23 19:30	1
Toxaphene (1C)	ND		1.0	0.31	ug/L		03/01/23 08:04	03/02/23 19:30	1
p,p'-DDD (2C)	**0.26**		0.031	0.0052	ug/L		03/01/23 08:04	03/02/23 19:30	1
p,p'-DDE (1C)	**0.077**		0.031	0.0052	ug/L		03/01/23 08:04	03/02/23 19:30	1
p,p'-DDT (2C)	ND	UJ RC: P	0.047	0.047	ug/L		03/01/23 08:04	03/02/23 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*43*		*20 - 149*	*03/01/23 08:04*	*03/02/23 19:30*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*46*		*20 - 149*	*03/01/23 08:04*	*03/02/23 19:30*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*73*		*20 - 129*	*03/01/23 08:04*	*03/02/23 19:30*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*70*		*20 - 129*	*03/01/23 08:04*	*03/02/23 19:30*	*1*

Client Sample ID: MW-2D-F-20230222

Lab Sample ID: 410-116613-10

Date Collected: 02/22/23 13:38
Matrix: Water
Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	ND		0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 19:45	1
alpha-BHC (1C)	ND		0.020	0.0030	ug/L		03/01/23 08:04	03/02/23 19:45	1
alpha-Chlordane (1C)	ND		0.020	0.0030	ug/L		03/01/23 08:04	03/02/23 19:45	1
beta-BHC (1C)	ND		0.030	0.011	ug/L		03/01/23 08:04	03/02/23 19:45	1
delta-BHC (1C)	ND		0.020	0.0034	ug/L		03/01/23 08:04	03/02/23 19:45	1
Dieldrin (1C)	ND		0.030	0.0053	ug/L		03/01/23 08:04	03/02/23 19:45	1
Endosulfan I (1C)	ND		0.020	0.0043	ug/L		03/01/23 08:04	03/02/23 19:45	1
Endosulfan II (1C)	ND		0.040	0.015	ug/L		03/01/23 08:04	03/02/23 19:45	1
Endosulfan sulfate (1C)	ND		0.030	0.0058	ug/L		03/01/23 08:04	03/02/23 19:45	1
Endrin (1C)	ND		0.030	0.0081	ug/L		03/01/23 08:04	03/02/23 19:45	1
Endrin aldehyde (1C)	ND		0.10	0.020	ug/L		03/01/23 08:04	03/02/23 19:45	1
Endrin ketone (1C)	ND		0.030	0.0050	ug/L		03/01/23 08:04	03/02/23 19:45	1
gamma-BHC (Lindane) (1C)	ND		0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 19:45	1
gamma-Chlordane (1C)	ND		0.040	0.0070	ug/L		03/01/23 08:04	03/02/23 19:45	1
Heptachlor (1C)	ND		0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 19:45	1
Heptachlor epoxide (1C)	ND		0.020	0.0023	ug/L		03/01/23 08:04	03/02/23 19:45	1
Methoxychlor (1C)	ND		0.11	0.030	ug/L		03/01/23 08:04	03/02/23 19:45	1
Toxaphene (1C)	ND		1.0	0.30	ug/L		03/01/23 08:04	03/02/23 19:45	1
p,p'-DDD (2C)	**0.0069**	J RC: P	0.030	0.0050	ug/L		03/01/23 08:04	03/02/23 19:45	1
p,p'-DDE (1C)	ND		0.030	0.0050	ug/L		03/01/23 08:04	03/02/23 19:45	1
p,p'-DDT (2C)	ND		0.030	0.0052	ug/L		03/01/23 08:04	03/02/23 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*49*		*20 - 149*	*03/01/23 08:04*	*03/02/23 19:45*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*51*		*20 - 149*	*03/01/23 08:04*	*03/02/23 19:45*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*70*		*20 - 129*	*03/01/23 08:04*	*03/02/23 19:45*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*68*		*20 - 129*	*03/01/23 08:04*	*03/02/23 19:45*	*1*

Client Sample ID: DUP-UF-20230222

Lab Sample ID: 410-116613-11

Date Collected: 02/22/23 00:00
Matrix: Water
Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	ND		0.10	0.010	ug/L		03/01/23 08:04	03/02/23 19:59	5
alpha-BHC (1C)	ND		0.10	0.015	ug/L		03/01/23 08:04	03/02/23 19:59	5
alpha-Chlordane (1C)	**0.022**	**J**	0.10	0.015	ug/L		03/01/23 08:04	03/02/23 19:59	5
beta-BHC (2C)	ND		0.15	0.055	ug/L		03/01/23 08:04	03/02/23 19:59	5
delta-BHC (2C)	ND		0.10	0.017	ug/L		03/01/23 08:04	03/02/23 19:59	5
Dieldrin (1C)	**0.64**		0.15	0.027	ug/L		03/01/23 08:04	03/02/23 19:59	5
Endosulfan I (1C)	ND		0.10	0.022	ug/L		03/01/23 08:04	03/02/23 19:59	5
Endosulfan II (1C)	ND		0.20	0.075	ug/L		03/01/23 08:04	03/02/23 19:59	5
Endosulfan sulfate (1C)	ND		0.15	0.029	ug/L		03/01/23 08:04	03/02/23 19:59	5
Endrin (1C)	ND		0.15	0.041	ug/L		03/01/23 08:04	03/02/23 19:59	5
Endrin aldehyde (1C)	ND		0.50	0.10	ug/L		03/01/23 08:04	03/02/23 19:59	5
Endrin ketone (1C)	ND		0.15	0.025	ug/L		03/01/23 08:04	03/02/23 19:59	5
gamma-BHC (Lindane) (1C)	ND		0.10	0.010	ug/L		03/01/23 08:04	03/02/23 19:59	5
gamma-Chlordane (1C)	ND		0.20	0.035	ug/L		03/01/23 08:04	03/02/23 19:59	5
Heptachlor (1C)	ND		0.10	0.010	ug/L		03/01/23 08:04	03/02/23 19:59	5
Heptachlor epoxide (2C)	ND		0.10	0.012	ug/L		03/01/23 08:04	03/02/23 19:59	5

Client Sample ID: DUP-UF-20230222

Lab Sample ID: 410-116613-11

Date Collected: 02/22/23 00:00

Matrix: Water

Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor (1C)	ND		0.55	0.15	ug/L		03/01/23 08:04	03/02/23 19:59	5
Toxaphene (1C)	ND		5.0	1.5	ug/L		03/01/23 08:04	03/02/23 19:59	5
p,p'-DDD (2C)	ND		0.15	0.025	ug/L		03/01/23 08:04	03/02/23 19:59	5
p,p'-DDE (1C)	ND		0.15	0.025	ug/L		03/01/23 08:04	03/02/23 19:59	5
p,p'-DDT (1C)	ND		0.15	0.026	ug/L		03/01/23 08:04	03/02/23 19:59	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*66*		*20 - 149*	*03/01/23 08:04*	*03/02/23 19:59*	*5*
DCB Decachlorobiphenyl (Surr) (2C)	*61*		*20 - 149*	*03/01/23 08:04*	*03/02/23 19:59*	*5*
Tetrachloro-m-xylene (Surr) (1C)	*65*		*20 - 129*	*03/01/23 08:04*	*03/02/23 19:59*	*5*
Tetrachloro-m-xylene (Surr) (2C)	*60*		*20 - 129*	*03/01/23 08:04*	*03/02/23 19:59*	*5*

Client Sample ID: DUP-F-20230222

Lab Sample ID: 410-116613-12

Date Collected: 02/22/23 00:00

Matrix: Water

Date Received: 02/23/23 18:00

Method: SW846 8081B - Organochlorine Pesticides (GC) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	ND		0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 20:14	1
alpha-BHC (1C)	ND		0.020	0.0030	ug/L		03/01/23 08:04	03/02/23 20:14	1
alpha-Chlordane (1C)	ND		0.020	0.0030	ug/L		03/01/23 08:04	03/02/23 20:14	1
beta-BHC (1C)	ND		0.030	0.011	ug/L		03/01/23 08:04	03/02/23 20:14	1
delta-BHC (1C)	ND		0.020	0.0034	ug/L		03/01/23 08:04	03/02/23 20:14	1
Dieldrin (1C)	ND		0.030	0.0054	ug/L		03/01/23 08:04	03/02/23 20:14	1
Endosulfan I (1C)	ND		0.020	0.0044	ug/L		03/01/23 08:04	03/02/23 20:14	1
Endosulfan II (1C)	ND		0.040	0.015	ug/L		03/01/23 08:04	03/02/23 20:14	1
Endosulfan sulfate (1C)	ND		0.030	0.0059	ug/L		03/01/23 08:04	03/02/23 20:14	1
Endrin (1C)	ND		0.030	0.0082	ug/L		03/01/23 08:04	03/02/23 20:14	1
Endrin aldehyde (1C)	ND		0.10	0.020	ug/L		03/01/23 08:04	03/02/23 20:14	1
Endrin ketone (1C)	ND		0.030	0.0051	ug/L		03/01/23 08:04	03/02/23 20:14	1
gamma-BHC (Lindane) (1C)	ND		0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 20:14	1
gamma-Chlordane (1C)	ND		0.040	0.0071	ug/L		03/01/23 08:04	03/02/23 20:14	1
Heptachlor (1C)	ND		0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 20:14	1
Heptachlor epoxide (1C)	ND		0.020	0.0023	ug/L		03/01/23 08:04	03/02/23 20:14	1
Methoxychlor (1C)	ND		0.11	0.030	ug/L		03/01/23 08:04	03/02/23 20:14	1
Toxaphene (1C)	ND		1.0	0.30	ug/L		03/01/23 08:04	03/02/23 20:14	1
p,p'-DDD (1C)	ND		0.030	0.0051	ug/L		03/01/23 08:04	03/02/23 20:14	1
p,p'-DDE (1C)	ND		0.030	0.0051	ug/L		03/01/23 08:04	03/02/23 20:14	1
p,p'-DDT (1C)	ND		0.030	0.0053	ug/L		03/01/23 08:04	03/02/23 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*64*		*20 - 149*	*03/01/23 08:04*	*03/02/23 20:14*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*64*		*20 - 149*	*03/01/23 08:04*	*03/02/23 20:14*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*75*		*20 - 129*	*03/01/23 08:04*	*03/02/23 20:14*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*72*		*20 - 129*	*03/01/23 08:04*	*03/02/23 20:14*	*1*

Surrogate Summary

Client: Brown and Caldwell
Project/Site: Bartlett Tree Site, NY

Job ID: 410-116613-1

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(20-149)	(20-149)	(20-129)	(20-129)
410-116613-1	MW-3-UF-20230222	87	83	79	77
410-116613-1 MS	MW-3-UF-20230222	74	70	74	73
410-116613-1 MSD	MW-3-UF-20230222	72	70	71	69
410-116613-3	EB-UF-20230222	56	55	71	72
410-116613-5	MW-5-UF-20230222	17 S1- cn	18 S1- cn	49 cn	49 cn
410-116613-7	MW-4-UF-20230222	58	56	63	57
410-116613-9	MW-2D-UF-20230222	43	46	73	70
410-116613-11	DUP-UF-20230222	66	61	65	60
LCS 410-348994/2-A	Lab Control Sample	52	51	69	63
MB 410-348994/1-A	Method Blank	46	46	66	63

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water — **Prep Type: Dissolved**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(20-149)	(20-149)	(20-129)	(20-129)
410-116613-2	MW-3-F-20230222	74	72	64	63
410-116613-2 MS	MW-3-F-20230222	72	68	61	58
410-116613-2 MSD	MW-3-F-20230222	87	83	75	71
410-116613-4	EB-F-20230222	61	61	72	70
410-116613-6	MW-5-F-20230222	14 S1- cn	14 S1- cn	46 cn	46 cn
410-116613-8	MW-4-F-20230222	67	67	64	62
410-116613-10	MW-2D-F-20230222	49	51	70	68
410-116613-12	DUP-F-20230222	64	64	75	72

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-348994/1-A
Matrix: Water
Analysis Batch: 349358

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 348994

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	ND		0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 02:38	1
alpha-BHC (1C)	ND		0.020	0.0030	ug/L		03/01/23 08:04	03/02/23 02:38	1
alpha-Chlordane (1C)	ND		0.020	0.0030	ug/L		03/01/23 08:04	03/02/23 02:38	1
beta-BHC (1C)	ND		0.030	0.011	ug/L		03/01/23 08:04	03/02/23 02:38	1
delta-BHC (2C)	0.0305	p	0.020	0.0034	ug/L		03/01/23 08:04	03/02/23 02:38	1
Dieldrin (1C)	ND		0.030	0.0053	ug/L		03/01/23 08:04	03/02/23 02:38	1
Endosulfan I (1C)	ND		0.020	0.0043	ug/L		03/01/23 08:04	03/02/23 02:38	1
Endosulfan II (1C)	ND		0.040	0.015	ug/L		03/01/23 08:04	03/02/23 02:38	1
Endosulfan sulfate (1C)	ND		0.030	0.0058	ug/L		03/01/23 08:04	03/02/23 02:38	1
Endrin (1C)	ND		0.030	0.0081	ug/L		03/01/23 08:04	03/02/23 02:38	1
Endrin aldehyde (1C)	ND		0.10	0.020	ug/L		03/01/23 08:04	03/02/23 02:38	1
Endrin ketone (1C)	ND		0.030	0.0050	ug/L		03/01/23 08:04	03/02/23 02:38	1
gamma-BHC (Lindane) (1C)	ND		0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 02:38	1
gamma-Chlordane (2C)	ND		0.040	0.0070	ug/L		03/01/23 08:04	03/02/23 02:38	1
Heptachlor (2C)	0.0159	J	0.020	0.0020	ug/L		03/01/23 08:04	03/02/23 02:38	1
Heptachlor epoxide (1C)	ND		0.020	0.0023	ug/L		03/01/23 08:04	03/02/23 02:38	1
Methoxychlor (1C)	ND		0.11	0.030	ug/L		03/01/23 08:04	03/02/23 02:38	1
Toxaphene (1C)	ND		1.0	0.30	ug/L		03/01/23 08:04	03/02/23 02:38	1
p,p'-DDD (1C)	ND		0.030	0.0050	ug/L		03/01/23 08:04	03/02/23 02:38	1
p,p'-DDE (1C)	ND		0.030	0.0050	ug/L		03/01/23 08:04	03/02/23 02:38	1
p,p'-DDT (2C)	ND		0.030	0.0052	ug/L		03/01/23 08:04	03/02/23 02:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*46*		*20 - 149*	*03/01/23 08:04*	*03/02/23 02:38*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*46*		*20 - 149*	*03/01/23 08:04*	*03/02/23 02:38*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*66*		*20 - 129*	*03/01/23 08:04*	*03/02/23 02:38*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*63*		*20 - 129*	*03/01/23 08:04*	*03/02/23 02:38*	*1*

Lab Sample ID: LCS 410-348994/2-A
Matrix: Water
Analysis Batch: 349358

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 348994

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aldrin (1C)	0.100	0.0695		ug/L		69	10 - 148
alpha-BHC (1C)	0.100	0.0857		ug/L		86	47 - 132
alpha-Chlordane (1C)	0.100	0.0845		ug/L		84	50 - 136
beta-BHC (1C)	0.100	0.0957		ug/L		96	65 - 139
delta-BHC (2C)	0.100	0.0834		ug/L		83	56 - 141
Dieldrin (1C)	0.200	0.161		ug/L		80	58 - 145
Endosulfan I (1C)	0.100	0.0842		ug/L		84	63 - 138
Endosulfan II (1C)	0.200	0.177		ug/L		89	61 - 138
Endosulfan sulfate (1C)	0.200	0.189		ug/L		94	63 - 129
Endrin (1C)	0.200	0.181		ug/L		90	63 - 131
Endrin aldehyde (1C)	0.200	0.167		ug/L		84	57 - 135
Endrin ketone (1C)	0.200	0.200		ug/L		100	67 - 136
gamma-BHC (Lindane) (1C)	0.100	0.0855		ug/L		85	61 - 139
gamma-Chlordane (1C)	0.100	0.104		ug/L		104	33 - 141
Heptachlor (1C)	0.100	0.0839		ug/L		84	35 - 136

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-348994/2-A
Matrix: Water
Analysis Batch: 349358

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 348994

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor epoxide (1C)	0.100	0.0865		ug/L		86	59 - 146
Methoxychlor (2C)	1.00	0.821		ug/L		82	66 - 148
p,p'-DDD (1C)	0.200	0.189		ug/L		95	42 - 148
p,p'-DDE (1C)	0.200	0.168		ug/L		84	20 - 140
p,p'-DDT (2C)	0.200	0.155		ug/L		78	40 - 145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*52*		*20 - 149*
DCB Decachlorobiphenyl (Surr) (2C)	*51*		*20 - 149*
Tetrachloro-m-xylene (Surr) (1C)	*69*		*20 - 129*
Tetrachloro-m-xylene (Surr) (2C)	*63*		*20 - 129*

Lab Sample ID: 410-116613-1 MS
Matrix: Water
Analysis Batch: 349358

Client Sample ID: MW-3-UF-20230222
Prep Type: Total/NA
Prep Batch: 348994

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aldrin (1C)	ND		0.100	0.0697	J	ug/L		69	10 - 148
alpha-BHC (1C)	ND		0.100	0.0892	J	ug/L		89	47 - 132
alpha-Chlordane (1C)	ND		0.100	0.101		ug/L		101	50 - 136
beta-BHC (1C)	ND		0.100	0.116	J	ug/L		116	65 - 139
delta-BHC (2C)	ND		0.100	0.0799	J p	ug/L		80	56 - 141
Dieldrin (1C)	ND		0.201	0.173		ug/L		86	58 - 145
Endosulfan I (1C)	ND		0.100	0.0951	J	ug/L		95	63 - 138
Endosulfan II (1C)	ND		0.201	0.191	J	ug/L		95	61 - 138
Endosulfan sulfate (1C)	ND		0.201	0.198		ug/L		98	63 - 129
Endrin (1C)	ND		0.201	0.183		ug/L		91	63 - 131
Endrin aldehyde (1C)	ND		0.201	0.182	J	ug/L		90	57 - 135
Endrin ketone (1C)	ND		0.201	0.194		ug/L		97	67 - 136
gamma-BHC (Lindane) (1C)	ND		0.100	0.0966	J	ug/L		96	61 - 139
gamma-Chlordane (1C)	ND		0.100	0.0976	J	ug/L		97	33 - 141
Heptachlor (1C)	ND		0.100	0.0867	J p	ug/L		86	35 - 136
Heptachlor epoxide (1C)	ND		0.100	0.0993	J	ug/L		99	59 - 146
Methoxychlor (2C)	ND		1.00	0.716		ug/L		71	66 - 148
p,p'-DDD (1C)	ND		0.201	0.181		ug/L		90	42 - 148
p,p'-DDE (1C)	ND		0.201	0.157		ug/L		78	20 - 140
p,p'-DDT (2C)	ND		0.201	0.123	J	ug/L		61	40 - 145

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*74*		*20 - 149*
DCB Decachlorobiphenyl (Surr) (2C)	*70*		*20 - 149*
Tetrachloro-m-xylene (Surr) (1C)	*74*		*20 - 129*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-116613-1 MS
Matrix: Water
Analysis Batch: 349358

Client Sample ID: MW-3-UF-20230222
Prep Type: Total/NA
Prep Batch: 348994

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene (Surr) (2C)	73		20 - 129

Lab Sample ID: 410-116613-1 MSD
Matrix: Water
Analysis Batch: 349358

Client Sample ID: MW-3-UF-20230222
Prep Type: Total/NA
Prep Batch: 348994

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aldrin (1C)	ND		0.100	0.0697	J	ug/L		70	10 - 148	0	30
alpha-BHC (1C)	ND		0.100	0.0819	J	ug/L		82	47 - 132	8	30
alpha-Chlordane (1C)	ND		0.100	0.0962	J	ug/L		96	50 - 136	5	30
beta-BHC (1C)	ND		0.100	0.108	J	ug/L		108	65 - 139	7	30
delta-BHC (2C)	ND		0.100	0.0732	J p	ug/L		73	56 - 141	9	30
Dieldrin (1C)	ND		0.201	0.160		ug/L		80	58 - 145	7	30
Endosulfan I (1C)	ND		0.100	0.0892	J	ug/L		89	63 - 138	6	30
Endosulfan II (1C)	ND		0.201	0.179	J	ug/L		89	61 - 138	7	30
Endosulfan sulfate (1C)	ND		0.201	0.185		ug/L		92	63 - 129	7	30
Endrin (1C)	ND		0.201	0.176		ug/L		88	63 - 131	4	30
Endrin aldehyde (1C)	ND		0.201	0.172	J	ug/L		86	57 - 135	5	20
Endrin ketone (1C)	ND		0.201	0.185		ug/L		92	67 - 136	5	30
gamma-BHC (Lindane) (1C)	ND		0.100	0.0862	J	ug/L		86	61 - 139	11	30
gamma-Chlordane (2C)	ND		0.100	0.0813	J p	ug/L		81	33 - 141	18	30
Heptachlor (1C)	ND		0.100	0.0826	J p	ug/L		82	35 - 136	5	30
Heptachlor epoxide (1C)	ND		0.100	0.0911	J	ug/L		91	59 - 146	9	30
Methoxychlor (2C)	ND		1.00	0.699		ug/L		70	66 - 148	2	30
p,p'-DDD (1C)	ND		0.201	0.175		ug/L		87	42 - 148	3	30
p,p'-DDE (1C)	ND		0.201	0.154		ug/L		77	20 - 140	2	30
p,p'-DDT (2C)	ND		0.201	0.123	J	ug/L		61	40 - 145	0	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	72		20 - 149
DCB Decachlorobiphenyl (Surr) (2C)	70		20 - 149
Tetrachloro-m-xylene (Surr) (1C)	71		20 - 129
Tetrachloro-m-xylene (Surr) (2C)	69		20 - 129

Lab Sample ID: 410-116613-2 MS
Matrix: Water
Analysis Batch: 349358

Client Sample ID: MW-3-F-20230222
Prep Type: Dissolved
Prep Batch: 348994

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aldrin (1C)	ND		0.101	0.0620	J	ug/L		61	10 - 148
alpha-BHC (1C)	ND		0.101	0.0704	J	ug/L		69	47 - 132
alpha-Chlordane (1C)	ND		0.101	0.0729	J	ug/L		72	50 - 136
beta-BHC (1C)	ND		0.101	0.0870	J	ug/L		86	65 - 139
delta-BHC (1C)	ND		0.101	0.0714	J	ug/L		70	56 - 141

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-116613-2 MS
Matrix: Water
Analysis Batch: 349358

Client Sample ID: MW-3-F-20230222
Prep Type: Dissolved
Prep Batch: 348994

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dieldrin (1C)	ND		0.203	0.131	J	ug/L		65	58 - 145
Endosulfan I (1C)	ND		0.101	0.0729	J	ug/L		72	63 - 138
Endosulfan II (1C)	ND		0.203	0.146	J	ug/L		72	61 - 138
Endosulfan sulfate (1C)	ND		0.203	0.154		ug/L		76	63 - 129
Endrin (1C)	ND		0.203	0.145	J	ug/L		71	63 - 131
Endrin aldehyde (1C)	ND	F2	0.203	0.146	J	ug/L		72	57 - 135
Endrin ketone (1C)	ND		0.203	0.156		ug/L		77	67 - 136
gamma-BHC (Lindane) (1C)	ND		0.101	0.0742	J	ug/L		73	61 - 139
gamma-Chlordane (2C)	ND		0.101	0.0619	J p	ug/L		61	33 - 141
Heptachlor (1C)	ND		0.101	0.0747	J	ug/L		74	35 - 136
Heptachlor epoxide (2C)	ND	F2	0.101	0.0471	J p F1	ug/L		47	59 - 146
Methoxychlor (2C)	ND		1.01	0.595	F1	ug/L		59	66 - 148
p,p'-DDD (1C)	ND		0.203	0.148	J	ug/L		73	42 - 148
p,p'-DDE (1C)	ND		0.203	0.134	J	ug/L		66	20 - 140
p,p'-DDT (2C)	ND		0.203	0.102	J	ug/L		50	40 - 145

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*72*		*20 - 149*
DCB Decachlorobiphenyl (Surr) (2C)	*68*		*20 - 149*
Tetrachloro-m-xylene (Surr) (1C)	*61*		*20 - 129*
Tetrachloro-m-xylene (Surr) (2C)	*58*		*20 - 129*

Lab Sample ID: 410-116613-2 MSD
Matrix: Water
Analysis Batch: 349358

Client Sample ID: MW-3-F-20230222
Prep Type: Dissolved
Prep Batch: 348994

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aldrin (1C)	ND		0.101	0.0773	J	ug/L		77	10 - 148	22	30
alpha-BHC (1C)	ND		0.101	0.0902	J	ug/L		90	47 - 132	25	30
alpha-Chlordane (1C)	ND		0.101	0.0964	J	ug/L		96	50 - 136	28	30
beta-BHC (1C)	ND		0.101	0.115	J	ug/L		114	65 - 139	27	30
delta-BHC (1C)	ND		0.101	0.0898	J	ug/L		89	56 - 141	23	30
Dieldrin (1C)	ND		0.201	0.165		ug/L		82	58 - 145	23	30
Endosulfan I (1C)	ND		0.101	0.0929	J	ug/L		92	63 - 138	24	30
Endosulfan II (1C)	ND		0.201	0.188	J	ug/L		94	61 - 138	25	30
Endosulfan sulfate (1C)	ND		0.201	0.200		ug/L		100	63 - 129	26	30
Endrin (1C)	ND		0.201	0.189		ug/L		94	63 - 131	26	30
Endrin aldehyde (1C)	ND	F2	0.201	0.183	J F2	ug/L		91	57 - 135	23	20
Endrin ketone (1C)	ND		0.201	0.201		ug/L		100	67 - 136	25	30
gamma-BHC (Lindane) (1C)	ND		0.101	0.0915	J	ug/L		91	61 - 139	21	30
gamma-Chlordane (2C)	ND		0.101	0.0818	J p	ug/L		81	33 - 141	28	30
Heptachlor (1C)	ND		0.101	0.0907	J	ug/L		90	35 - 136	19	30
Heptachlor epoxide (1C)	ND	F2	0.101	0.0985	J F2	ug/L		98	59 - 146	71	30
Methoxychlor (2C)	ND		1.01	0.737		ug/L		73	66 - 148	21	30
p,p'-DDD (1C)	ND		0.201	0.192		ug/L		96	42 - 148	26	30

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-116613-2 MSD
Matrix: Water
Analysis Batch: 349358

Client Sample ID: MW-3-F-20230222
Prep Type: Dissolved
Prep Batch: 348994

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
p,p'-DDE (1C)	ND		0.201	0.170		ug/L		84	20 - 140	24	30
p,p'-DDT (2C)	ND		0.201	0.124	J	ug/L		61	40 - 145	19	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*87*		*20 - 149*
DCB Decachlorobiphenyl (Surr) (2C)	*83*		*20 - 149*
Tetrachloro-m-xylene (Surr) (1C)	*75*		*20 - 129*
Tetrachloro-m-xylene (Surr) (2C)	*71*		*20 - 129*

QC Association Summary

Client: Brown and Caldwell
Project/Site: Bartlett Tree Site, NY

Job ID: 410-116613-1

GC Semi VOA

Prep Batch: 348994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-116613-1	MW-3-UF-20230222	Total/NA	Water	3510C	
410-116613-2	MW-3-F-20230222	Dissolved	Water	3510C	
410-116613-3	EB-UF-20230222	Total/NA	Water	3510C	
410-116613-4	EB-F-20230222	Dissolved	Water	3510C	
410-116613-5	MW-5-UF-20230222	Total/NA	Water	3510C	
410-116613-6	MW-5-F-20230222	Dissolved	Water	3510C	
410-116613-7	MW-4-UF-20230222	Total/NA	Water	3510C	
410-116613-8	MW-4-F-20230222	Dissolved	Water	3510C	
410-116613-9	MW-2D-UF-20230222	Total/NA	Water	3510C	
410-116613-10	MW-2D-F-20230222	Dissolved	Water	3510C	
410-116613-11	DUP-UF-20230222	Total/NA	Water	3510C	
410-116613-12	DUP-F-20230222	Dissolved	Water	3510C	
MB 410-348994/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-348994/2-A	Lab Control Sample	Total/NA	Water	3510C	
410-116613-1 MS	MW-3-UF-20230222	Total/NA	Water	3510C	
410-116613-1 MSD	MW-3-UF-20230222	Total/NA	Water	3510C	
410-116613-2 MS	MW-3-F-20230222	Dissolved	Water	3510C	
410-116613-2 MSD	MW-3-F-20230222	Dissolved	Water	3510C	

Analysis Batch: 349358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-116613-1	MW-3-UF-20230222	Total/NA	Water	8081B	348994
410-116613-2	MW-3-F-20230222	Dissolved	Water	8081B	348994
410-116613-3	EB-UF-20230222	Total/NA	Water	8081B	348994
410-116613-4	EB-F-20230222	Dissolved	Water	8081B	348994
410-116613-5	MW-5-UF-20230222	Total/NA	Water	8081B	348994
410-116613-6	MW-5-F-20230222	Dissolved	Water	8081B	348994
410-116613-7	MW-4-UF-20230222	Total/NA	Water	8081B	348994
410-116613-8	MW-4-F-20230222	Dissolved	Water	8081B	348994
410-116613-9	MW-2D-UF-20230222	Total/NA	Water	8081B	348994
410-116613-10	MW-2D-F-20230222	Dissolved	Water	8081B	348994
410-116613-11	DUP-UF-20230222	Total/NA	Water	8081B	348994
410-116613-12	DUP-F-20230222	Dissolved	Water	8081B	348994
MB 410-348994/1-A	Method Blank	Total/NA	Water	8081B	348994
LCS 410-348994/2-A	Lab Control Sample	Total/NA	Water	8081B	348994
410-116613-1 MS	MW-3-UF-20230222	Total/NA	Water	8081B	348994
410-116613-1 MSD	MW-3-UF-20230222	Total/NA	Water	8081B	348994
410-116613-2 MS	MW-3-F-20230222	Dissolved	Water	8081B	348994
410-116613-2 MSD	MW-3-F-20230222	Dissolved	Water	8081B	348994

Lab Chronicle

Client: Brown and Caldwell
Project/Site: Bartlett Tree Site, NY

Job ID: 410-116613-1

Client Sample ID: MW-3-UF-20230222
Lab Sample ID: 410-116613-1
Date Collected: 02/22/23 11:02
Matrix: Water
Date Received: 02/23/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			348994	YDF5	ELLE	03/01/23 08:04
Total/NA	Analysis	8081B		5	349358	UAMZ	ELLE	03/02/23 17:04

Client Sample ID: MW-3-F-20230222
Lab Sample ID: 410-116613-2
Date Collected: 02/22/23 11:07
Matrix: Water
Date Received: 02/23/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3510C			348994	YDF5	ELLE	03/01/23 08:04
Dissolved	Analysis	8081B		5	349358	UAMZ	ELLE	03/02/23 17:48

Client Sample ID: EB-UF-20230222
Lab Sample ID: 410-116613-3
Date Collected: 02/22/23 11:45
Matrix: Water
Date Received: 02/23/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			348994	YDF5	ELLE	03/01/23 08:04
Total/NA	Analysis	8081B		1	349358	UAMZ	ELLE	03/02/23 18:02

Client Sample ID: EB-F-20230222
Lab Sample ID: 410-116613-4
Date Collected: 02/22/23 11:50
Matrix: Water
Date Received: 02/23/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3510C			348994	YDF5	ELLE	03/01/23 08:04
Dissolved	Analysis	8081B		1	349358	UAMZ	ELLE	03/02/23 18:17

Client Sample ID: MW-5-UF-20230222
Lab Sample ID: 410-116613-5
Date Collected: 02/22/23 11:57
Matrix: Water
Date Received: 02/23/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			348994	YDF5	ELLE	03/01/23 08:04
Total/NA	Analysis	8081B		1	349358	UAMZ	ELLE	03/02/23 18:32

Client Sample ID: MW-5-F-20230222
Lab Sample ID: 410-116613-6
Date Collected: 02/22/23 12:02
Matrix: Water
Date Received: 02/23/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3510C			348994	YDF5	ELLE	03/01/23 08:04
Dissolved	Analysis	8081B		1	349358	UAMZ	ELLE	03/02/23 18:46

Lab Chronicle

Client: Brown and Caldwell
Project/Site: Bartlett Tree Site, NY

Job ID: 410-116613-1

Client Sample ID: MW-4-UF-20230222
Lab Sample ID: 410-116613-7
Date Collected: 02/22/23 12:39
Matrix: Water
Date Received: 02/23/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			348994	YDF5	ELLE	03/01/23 08:04
Total/NA	Analysis	8081B		1	349358	UAMZ	ELLE	03/02/23 19:01

Client Sample ID: MW-4-F-20230222
Lab Sample ID: 410-116613-8
Date Collected: 02/22/23 12:44
Matrix: Water
Date Received: 02/23/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3510C			348994	YDF5	ELLE	03/01/23 08:04
Dissolved	Analysis	8081B		1	349358	UAMZ	ELLE	03/02/23 19:15

Client Sample ID: MW-2D-UF-20230222
Lab Sample ID: 410-116613-9
Date Collected: 02/22/23 13:33
Matrix: Water
Date Received: 02/23/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			348994	YDF5	ELLE	03/01/23 08:04
Total/NA	Analysis	8081B		1	349358	UAMZ	ELLE	03/02/23 19:30

Client Sample ID: MW-2D-F-20230222
Lab Sample ID: 410-116613-10
Date Collected: 02/22/23 13:38
Matrix: Water
Date Received: 02/23/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3510C			348994	YDF5	ELLE	03/01/23 08:04
Dissolved	Analysis	8081B		1	349358	UAMZ	ELLE	03/02/23 19:45

Client Sample ID: DUP-UF-20230222
Lab Sample ID: 410-116613-11
Date Collected: 02/22/23 00:00
Matrix: Water
Date Received: 02/23/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			348994	YDF5	ELLE	03/01/23 08:04
Total/NA	Analysis	8081B		5	349358	UAMZ	ELLE	03/02/23 19:59

Client Sample ID: DUP-F-20230222
Lab Sample ID: 410-116613-12
Date Collected: 02/22/23 00:00
Matrix: Water
Date Received: 02/23/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3510C			348994	YDF5	ELLE	03/01/23 08:04
Dissolved	Analysis	8081B		1	349358	UAMZ	ELLE	03/02/23 20:14

Laboratory References:
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Brown and Caldwell
Project/Site: Bartlett Tree Site, NY

Job ID: 410-116613-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10670	04-01-23

Method Summary

Client: Brown and Caldwell
Project/Site: Bartlett Tree Site, NY

Job ID: 410-116613-1

Method	Method Description	Protocol	Laboratory
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Brown and Caldwell
Project/Site: Bartlett Tree Site, NY

Job ID: 410-116613-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-116613-1	MW-3-UF-20230222	Water	02/22/23 11:02	02/23/23 18:00
410-116613-2	MW-3-F-20230222	Water	02/22/23 11:07	02/23/23 18:00
410-116613-3	EB-UF-20230222	Water	02/22/23 11:45	02/23/23 18:00
410-116613-4	EB-F-20230222	Water	02/22/23 11:50	02/23/23 18:00
410-116613-5	MW-5-UF-20230222	Water	02/22/23 11:57	02/23/23 18:00
410-116613-6	MW-5-F-20230222	Water	02/22/23 12:02	02/23/23 18:00
410-116613-7	MW-4-UF-20230222	Water	02/22/23 12:39	02/23/23 18:00
410-116613-8	MW-4-F-20230222	Water	02/22/23 12:44	02/23/23 18:00
410-116613-9	MW-2D-UF-20230222	Water	02/22/23 13:33	02/23/23 18:00
410-116613-10	MW-2D-F-20230222	Water	02/22/23 13:38	02/23/23 18:00
410-116613-11	DUP-UF-20230222	Water	02/22/23 00:00	02/23/23 18:00
410-116613-12	DUP-F-20230222	Water	02/22/23 00:00	02/23/23 18:00

410-116613 Chain of Custody

'onme

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: AFV / MHM	Lab PM: Weyandt, Barbara A	Carrier Tracking No(s):	COC No: 410-81479-8178.1
Client Contact: Mr. Brian Taylor	Phone:	E-Mail: Barbara.Weyandt@et.eurofinsus.com	State of Origin: NY	Page: Page 1 of 2
Company: Brown and Caldwell	PWSID:			Job #:

Address: 3 Marcus Blvd Suite 106	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Albany	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
State, Zip: NY, 12205	Compliance Project: Δ Yes Δ No		
Phone: 845-901-4229(Tel)	PO #: 139990		Other:
Email: BFTaylor@brwncald.com	WO #:		
Project Name: Bartlett Tree Site, NY	Project #: 41003335		
Site: Bartlett Tree	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8081B - TCL OC Pesticides	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
MW-3-UF-20230222 +MS/MSD	02/22/23	1102	G	GW	N	Y	X	6	MS / MSD
MW-3-F-20230222 +MS/MSD		1107	G	GW	Y	Y	X	6	MS/MSD
EB-UF-20230222		1145	G	DI	N	N	X	2	
EB-F-20230222		1150	G	DI	Y	N	X	2	
MW-5-UF-20230222		1157	G	GW	N	N	X	2	
MW-5-F-20230222		1202	G	GW	Y	N	X	2	
MW-4-UF-20230222		1239	G	GW	N	N	X	2	
MW-4-F-20230222		1244	G	GW	Y	N	X	2	
MW-2D-20230222 "UF"		1333	G	GW	N	N	X	2	MW-2D-UF-20230222
MW-2D-F-20230222		1338	G	GW	Y	N	X	2	
DUP-UF-20230222		9998	G	GW	N	N	X	2	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) BCEquis EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
1	[signature]	2/22/23 1205	Eurofins			
2	Antonio Velazquez [signature]	2/23/22	BC	RPMdlm	23Feb23 1570	ELLE
3	RPMdlm	23Feb23 1800	ELLE	[signature]	2/23/23 1800	Elle

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.5, 3.5

Ver: 06/08/2021

Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: AFV/MHM	Lab PM: Weyandt, Barbara A	Carrier Tracking No(s):	COC No: 410-81479-8178.2
Client Contact: Mr. Brian Taylor	Phone:	E-Mail: Barbara.Weyandt@et.eurofinsus.com	State of Origin: NY	Page: Page 2 of 2
Company: Brown and Caldwell	PWSID:	Analysis Requested		Job #:
Address: 3 Marcus Blvd Suite 106	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
City: Albany	TAT Requested (days): Standard			
State, Zip: NY, 12205	Compliance Project: Δ Yes Δ No			
Phone: 845-901-4229(Tel)	PO #: 139990			
Email: BFTaylor@brwncald.com	WO #:			Other:
Project Name: Bartlett Tree Site, NY	Project #: 41003335			
Site: Bartlett Tree	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8081B - TCL OC Pesticides	Total Number of containers	Special Instructions/Note:
			Preservation Code:			N			
DUP-F-20230222	02/22/23	9999	6	GW	Y	N	X	2	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) BC Equis EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Antonio Velazquez	2/23/23	BC			
			RPMdlm	23Feb23 1520	ELLE
RPMdlm	23Feb23 1800	ELLE			
			Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				2/23/23 1800	ELLE

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.5, 3.5

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Brown and Caldwell

Job Number: 410-116613-1

Login Number: 116613
List Number: 1
Creator: Wrye, Shaun

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Attachment B: Field Data Sheets

Brown AND Caldwell

Ramsey, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-3
Sample I.D.: MW-3-F/UF-20230222 (if different from well no.)

Project: ~~BASF - Toms River~~ Bartlett Tree
Personnel: MHM / AFN

Date: 02/25/23 Time: 1021
Weather: Cloudy Air Temp.: 43

WELL DATA:

Casing Diameter: 6" ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other: _____
Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: _____ ft Bottom of Well: _____ ft
DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☐ Yes ☑ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☑ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☑ Yes ☐ No ☐ NA Is Inner Casing Intact? ☐ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: _____ To be purged: _____

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other: _____
Tubing/Rope: ☑ Teflon® ☐ Polyethylene ☐ Polypropylene ☐ Other: _____

Pumping Rate: 250 ml/min Elapsed Time: 33 min Volume Pumped: 2.6 gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: _____
PURGING EQUIPMENT: ☐ Dedicated ☑ Prepared Off-Site ☐ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☐ Stainless Steel
Tubing/Rope: ☑ Teflon® ☐ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned
Metals samples field filtered? ☑ Yes ☐ No Method: _____
APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: _____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☑ No ☐ Yes Name: _____
MS/MSD : ☐ No ☑ Yes Name: MW-3-F/UF-20230222 (MS/MSD)

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: _____ Date: 10/22/23

Brown AND Caldwell
500 North Franklin Tpk, Ramsey, NJ 07446
Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: ~~BASF - Toms River~~ Bartlett Tree
Project Number: ~~156416~~ 158380
Client: ~~BASF~~
Date: 02/22/23
Personnel: MHM/JDF
Well ID: MW-3
Purge/Sample Depth: 14'
Sample ID: MW-3-20230222 F/UF

Actual Time	Certified Parameters					ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
	pH	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)				
1026	5.76	13.97	0.451	3.50	76.5	171	34.46	250	UF=5.37 NTU
1029	5.97	14.60	0.427	3.31	90.1	160	34.48		
1032	6.11	14.93	0.398	3.53	105	161	34.49		
1035	6.13	14.98	0.388	3.67	100	163	34.50		
1038	6.17	15.02	0.371	3.95	94.1	166	34.51		F=1.62 NTU
1041	6.22	15.04	0.355	4.21	64.2	169	34.52		
1044	6.22	15.08	0.348	4.22	39.8	171	34.52		
1047	6.24	15.07	0.344	4.10	26.5	175	34.53		
1050	6.24	15.09	0.343	4.02	23.2	178	34.52		
1053	6.23	15.10	0.343	4.14	15.5	180	34.51		
1056	6.24	15.11	0.341	4.43	10.9	181	34.53		
1059	6.26	15.12	0.341	4.41	5.9	184			
1102		Collect MW-3 UF - 20230222							
1107		Collect MW-3 F - 20230222							
		+ MS / MSD							

MHM 02/22

Certified Sample Information:
Time of Sample: 1102 / 1107
Analyst Signature:

Instrument Data:
Manufacturer/Model: Horiba U-52
Serial No. Unit: 77LL703
Serial No. Handheld: XLAR10FB
Calibration Date/Time: 02/22/23

Are low-flow parameters subject to field lab certification? ☐ Yes ☒ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell

Upper Saddle River, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-5

Sample I.D.: MW-5-FInf-20230225 (If different from well no.)

Project: Bartlett Tire

Personnel: MMM / AEV

Date: 02/22/23 Time: 1124

Weather: Cloud Air Temp.: 43

WELL DATA:

Casing Diameter: 6" ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other: _____

Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☐ PVC ☐ Teflon® ☐ Open rock

DEPTH TO : Static Water Level: _____ ft Bottom of Well: _____ ft

DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:

CONDITION: Is Well clearly labeled? ☐ Yes ☑ No Is well clean to bottom? ☐ Yes ☐ No

Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☐ Yes ☐ No

Does Weep Hole adequately drain well head? ☐ Yes ☐ No

Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No

Is Padlock Functional? ☐ Yes ☐ No ☑ NA Is Inner Casing Intact? ☐ Yes ☐ No

Is Inner Casing Properly Capped and Vented? ☐ Yes ☐ No

VOLUME OF WATER: Standing in well: _____ To be purged: _____

PURGE DATA:

METHOD: ☐ Bailer, Size: _____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other: _____ Tubing/Rope: ☑ Teflon® ☐ Polyethylene ☐ Polypropylene ☐ Other: _____

Pumping Rate: 250 mL/min Elapsed Time: 30 min Volume Pumped: 250 mL

Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: _____

PURGING EQUIPMENT: ☐ Dedicated ☑ Prepared Off-Site ☐ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: _____ ☐ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel Tubing/Rope: ☐ Teflon® ☐ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals samples field filtered? ☐ Yes ☑ No Method: _____

APPEARANCE: ☐ Clear ☐ Turbid ☐ Color: _____ ☐ Contains Immiscible Liquid

FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☑ No ☐ Yes Name: _____

MS/MSD : ☑ No ☐ Yes Name: _____

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: _____ Date: 02/22/23

Brown AND Caldwell

2 Park Way, Upper Saddle River, NJ 07458
Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Bartlett Tree
Client: BC
Personnel: MHM / AFV
Purge/Sample Depth: ~39.5

Project Number: 158388
Date: 02/22/23
Well ID: MW-5
Sample ID: MW-5-FILT-20230222

Actual Time	Certified Parameters: pH	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1124	6.37	13.97	0.652	6.11	424	135	34.45	250	HF = 17.3 NTU
1127	6.49	14.25	0.592	0.05	292	72	34.47		
1130	6.61	14.94	0.547	0.00	125	36	34.49		
1133	6.60	15.06	0.514	0.00	164	17	34.50		
1136	6.60	15.17	0.490	0.00	48.3	-15	34.49		F = 1.58 NTU
1139	6.61	15.20	0.456	3.65	31.3	-26	34.49		
1142	6.61	15.22	0.442	2.92	22.2	-29	34.48		
1145	6.60	15.23	0.416	2.03	23.1	-33	34.50		
1148	6.60	15.23	0.399	1.71	24.9	-30	34.50		
1151	6.60	15.23	0.382	1.57	26.7	-28	34.50		
1154	6.58	15.24	0.369	1.46	24.4	-25	34.50		
1157		Collect		MW-5-FILT		-20230222			
1202		Collect		MW-5-F		-20230222			

Certified Sample Information:
Time of Sample: 1157 + 1202

Analyst Signature:

Instrument Data:
Manufacturer/Model: Horiba U-52
Serial No. Unit: 777L703
Calibration Date/Time: 02/22/23
Serial No. Handheld: XLAR16FB

Are low-flow parameters subject to field lab certification? ☐ Yes ☐ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell

Upper Saddle River, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-4

Sample I.D.: MW-4-UF/F-20230222 (if different from well no.)

Project: Bachelet Tree

Personnel: MHM / AFV

Date: 02/22/23 Time: 1206

Weather: Cloudy Air Temp.: 43

WELL DATA:

Casing Diameter: 6" ☐ Stainless Steel ☑ Steel ☐ PVC ☐ Teflon® ☐ Other: _____

Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☐ PVC ☐ Teflon® ☐ Open rock

DEPTH TO : Static Water Level: _____ ft Bottom of Well: _____ ft

DATUM: ☐ Top of Protective Casing ☑ Top of Well Casing ☐ Other:

CONDITION: Is Well clearly labeled? ☐ Yes ☑ No Is well clean to bottom? ☑ Yes ☐ No

Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☐ Yes ☐ No

Does Weep Hole adequately drain well head? ☐ Yes ☑ No

Is Concrete Pad Intact? (not cracked or frost heaved) ☐ Yes ☐ No

Is Padlock Functional? ☐ Yes ☐ No ☑ NA Is Inner Casing Intact? ☑ Yes ☐ No

Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No

VOLUME OF WATER: Standing in well: _____ To be purged: _____

PURGE DATA:

METHOD: ☐ Bailer, Size: _____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel ☐ PVC ☐ Other: _____

Tubing/Rope: ☐ Teflon® ☐ Polyethylene ☐ Polypropylene ☐ Other: _____

Pumping Rate: 250 mL/min Elapsed Time: 30 min Volume Pumped: 2.5 gal

Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: _____

PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: _____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Syringe Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

MATERIALS: Pump/Bailer: ☐ Teflon® ☑ Stainless Steel

Tubing/Rope: ☐ Teflon® ☐ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

Metals samples field filtered? ☑ Yes ☐ No Method: _____

APPEARANCE: ☑ Clear ☐ Turbid ☐ Color: _____ ☐ Contains Immiscible Liquid

FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☐ No ☑ Yes Name: Dup-UF/F-20230222

MS/MSD : ☑ No ☐ Yes Name: _____

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: _____ Date: 02/22/23

Brown AND Caldwell

2 Park Way, Upper Saddle River, NJ 07458
Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: BARRELL Ave
Client: BC
Personnel: MM / AFV
Purge/Sample Depth: ~39.5

Project Number: 158386
Date: 02/22/23
Well ID: MW-4
Sample ID: MW-4-UF/F-20230222

Actual Time	Certified Parameters: pH	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1206	6.71	15.69	1.01	3.47	113	27	34.65	256	UF = 2.24 NT
1209	6.68	14.09	1.11	3.43	89.7	52	34.64		
1212	6.62	14.41	1.12	3.50	45.1	72	34.64		
1215	6.60	14.51	1.11	3.60	26.7	79	34.64		F = 1.04 NT
1218	6.59	14.65	1.16	3.68	1.9	95	34.63		
1221	6.59	14.75	1.10	3.64	0.0	102	34.64		
1224	6.59	14.64	1.10	3.61	0.0	107	34.64		
1227	6.58	14.65	1.10	3.65	0.0	112	34.65		
1230	6.58	14.63	1.16	3.69	0.0	117	34.65		
1233	6.58	14.68	1.10	3.69	0.0	120	34.65		
1236	6.59	14.67	1.10	3.64	0.0	121	34.65		
1239			Collect MW-4-UF-20230222					9998	
1244			Collect MW-4-F-20230222					9999	

+ MS/MSD

Certified Sample Information:
Time of Sample: 1239 + 1244
Analyst Signature:

Instrument Data:
Manufacturer/Model: Horiba U-52
Serial No. Unit: 777L703
Serial No. Handheld: XLAR10FB
Calibration Date/Time: 02/22/23

Are low-flow parameters subject to field lab certification? ☐ Yes ☐ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell

Upper Saddle River, NJ Office

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Well Number: MW-2D
Sample I.D.: MW-2D-UFF-20230221 (if different from well no.)

Project: Barnett Tool
Personnel: MHM/DFV

Date: 02/21/23 Time: 1250
Weather: Cloudy Air Temp.: 43

WELL DATA:

Casing Diameter: 6" ☐ Stainless Steel ☐ Steel ☐ PVC ☐ Teflon® ☐ Other: ____
Intake Diameter: 2" ☐ Stainless Steel ☐ Galv. Steel ☑ PVC ☐ Teflon® ☐ Open rock
DEPTH TO : Static Water Level: ____ ft Bottom of Well: ____ ft
DATUM: ☐ Top of Protective Casing ☐ Top of Well Casing ☐ Other:
CONDITION: Is Well clearly labeled? ☐ Yes ☑ No Is well clean to bottom? ☑ Yes ☐ No
Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) ☑ Yes ☐ No
Does Weep Hole adequately drain well head? ☐ Yes ☐ No
Is Concrete Pad Intact? (not cracked or frost heaved) ☑ Yes ☐ No
Is Padlock Functional? ☐ Yes ☐ No ☐ NA Is Inner Casing Intact? ☑ Yes ☐ No
Is Inner Casing Properly Capped and Vented? ☑ Yes ☐ No
VOLUME OF WATER: Standing in well: ____ To be purged: ____

PURGE DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: ____

MATERIALS: Pump/Bailer: ☐ Teflon® ☐ Stainless Steel ☐ PVC ☐ Other: ____
Tubing/Rope: ☐ Teflon® ☐ Polyethylene ☐ Polypropylene ☐ Other: ____

Pumping Rate: 250 mL/min Elapsed Time: 30 min Volume Pumped: 2.5 gal
Was well Evacuated? ☐ Yes ☑ No Number of Well Volumes Removed: ____
PURGING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

SAMPLING DATA:

METHOD: ☐ Bailer, Size: ____ ☑ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump
☐ Syringe-Sampler ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: ____

MATERIALS: Pump/Bailer: ☐ Teflon® ☐ Stainless Steel
Tubing/Rope: ☐ Teflon® ☐ Polyethylene

SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned
Metals samples field filtered? ☐ Yes ☐ No Method: ____
APPEARANCE: ☐ Clear ☐ Turbid ☐ Color: ____ ☐ Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field parameter data.

DUP : ☐ No ☐ Yes Name: ~~DUP-UFF-20230221~~
MS/MSD : ☐ No ☐ Yes Name: ____

I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.

Signature: ____ Date: 02/22/23

Brown AND Caldwell

2 Park Way, Upper Saddle River, NJ 07458
Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023
LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name:	Bartlett Tree	Project Number:	150398
Client:	BC	Date:	02/22/23
Personnel:	MHM / AFV	Well ID:	MW-2D
Purge/Sample Depth:	~68.5'	Sample ID:	MW-2D-UF/F-20230222

Actual Time	pH	Temp (ºC)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
	Certified Parameters								
1250	7.64	13.41	0.433	6.57	112	92	35.81	250	UF = 16.9 NTU
1253	8.50	13.79	0.475	0.00	96.3	80	35.84	↓	
1256	8.50	13.92	0.492	0.00	85.2	73	35.88		
1259	8.70	14.10	0.514	0.00	72.9	67	35.92		F = 2.05 NTU
1302	8.61	14.13	0.559	0.00	70.2	66	35.95		
1305	8.48	14.16	0.607	0.00	68.4	66	35.96		
1308	8.22	14.19	0.629	0.00	51.2	66	35.97		
1311	8.12	14.20	0.689	0.00	43.7	65	35.98		
1314	8.03	14.20	0.703	0.00	32.4	65	35.99		
1317	7.99	14.22	0.705	0.00	23.3	64	35.99		
1320	7.98	14.20	0.705	0.00	24.4	63	35.99		
1332	Collect MW-2D-UF-20230222								
1338	Collect MW-2D-F-20230222								

02/22/23

Certified Sample Information:
Time of Sample: 1333 + 1338
Analyst Signature: [signature]

Instrument Data:
Manufacturer/Model: Horiba-U52
Serial No. Unit: 7771L763
Calibration Date/Time: 02/22/23
Serial No. Handheld: XLAR10FB

Are low-flow parameters subject to field lab certification? ☐ Yes ☑ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.