# Clean Air Status and Trends Network

## Second Quarter 2026 Quality Assurance Report

### Summary of Quarterly Operations (April through June)

**Submitted to the U.S. Environmental Protection Agency (EPA)**
**Air Quality Assessment Division**

**EPA Contract No. 68HERH21D0006**

**Introduction**

This quarterly report summarizes results from the Clean Air Status and Trends Network (CASTNET) quality assurance/quality control (QA/QC) program for data collected during second quarter 2026. The various QA/QC criteria and policies are documented in the CASTNET Quality Assurance Project Plan [QAPP; WSP USA Environment & Infrastructure Inc. (WSP), 2025]. The QAPP is comprehensive and includes standards and policies for all components of project operation from site selection through final data reporting. It is reviewed annually and updated as warranted.

**Quarterly Summary**

The CASTNET QA Manager completed incorporating the EPA's comments on the CASTNET QAPP Revision 11. The updated QAPP was submitted to the EPA on April 27, 2026.

A managerial review is performed annually in support of continuing International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC) 17025:2017 accreditation of WSP's analytical and field laboratories by the American Association for Laboratory Accreditation (A2LA). During second quarter 2026, the QA Manager continued the quality managerial review of 2025 activities. The audit of suppliers' performance and the quality of the goods supplied continued, and the 2025 Supplier Evaluation was finalized and signed on April 30, 2026. Additionally, the QA Manager reviewed and signed off on the completed demonstration of capability forms for CASTNET laboratory personnel, and compiled and analyzed performance metrics for site operators. The QA Manager will complete the managerial review report and prepare a presentation on the report for WSP corporate management and QA personnel during third quarter 2026.

WSP continued uploading historical 9-meter temperature data to the EPA's Air Quality System (AQS). Three files are uploaded for each site. WSP plans to upload temperature data to the AQS for all EPA- and Indian River Lagoon Council-sponsored sites from 1990 through 2024.

WSP completed uploading validated CASTNET 2025 filter pack concentration data to the EPA's AQS. The EPA requested that WSP submit the 2025 filter pack data earlier than usual so the data can be used by the EPA in its 2025 trends report to highlight 40 years of CASTNET filter pack concentration data.

During second quarter 2026, WSP continued work on developing standard operating procedures (SOPs) for the QA and operational aspects of the new Teledyne API (TAPI) N400 ozone analyzers. These SOPs will cover acceptance and performance testing at the CASTNET ozone laboratory in Gainesville, FL through installation, operation, and maintenance at the sites. The installation SOP was completed and verified by the CASTNET Field Operations Manager when he installed the first TAPI N400 ozone analyzer at the DUK008, NC site on June 17, 2026.

The CASTNET Data Management, Analysis, Interpretation, and Reporting Manager and other members of the data operations team completed work to incorporate fog and cloud screening for application of data flags to QuantAQ particulate matter (PM) data for easy identification of fog and cloud events. WSP evaluated the dewpoint calculation using the relative humidity and ambient temperature values obtained from the QuantAQ MODULAIR sensor to determine if fog or clouds were occurring at the site. A fog event is determined if the sensor's ambient temperature is within 3.75 degrees Celsius of the calculated dewpoint and $PM_{coarse}$ is >200 $\mu g/m^3$. The fog and cloud screening and associated flags were included in the daily submittals of QuantAQ data beginning May 19, 2026.

Table 1 lists external audits of CASTNET ozone systems at the EPA-sponsored sites that were performed by state agencies and National Performance Audit Program (NPAP) auditors during the quarter.

Table 2 lists the quarters of data that were validated to Level 3 during second quarter 2026 per site calibration group. Table 3 lists the sites in each calibration group along with the calibration schedule. Table 4 presents the measurement criteria for laboratory filter pack measurements. These criteria apply to the QC samples listed in the following section of this report. Table 5 presents the critical criteria for ozone monitoring. Table 6 presents the critical criteria for trace-level gas monitoring.

**Quality Control Analysis Count**

The QC sample statistics presented in this report are for reference standards (RF) and continuing calibration verification spikes (CCV) used to assess accuracy and for replicate sample analyses (RP) used to assess "in-run" precision. In addition, laboratory method blanks (MB) containing reagents without a filter; laboratory blanks (LB) containing reagents and a new, unexposed filter; and field blanks (FB) containing reagents and an unexposed filter that had been loaded into a filter pack assembly and shipped to and from the monitoring site while remaining in sealed packaging are also included. Table 7 presents the number of analyses in each category that were performed during second quarter 2026.

**Sample Receipt Statistics**

Ninety-five percent of field samples from EPA-sponsored sites should be received by the CASTNET laboratory in Gainesville, FL no later than 14 days after removal from the sampling tower. Table 8 presents the relevant sample receipt statistics for second quarter 2026.

**Data Quality Indicator (DQI) Results**

Figures 1 through 3 present the results of RF, CCV, and RP QC sample analyses for second quarter 2026. All results were within the criteria listed in Table 4. The calcium RP result at 27 percent was less than 5 times the RL, and the absolute difference was within ±RL.

Table 9 presents summary statistics of critical criteria measurements at ozone sites collected during second quarter 2026. The statistics presented contain data validated at Level 2 and Level 3. All data associated with QC checks that fail to meet the criteria listed in Table 5 were or will be invalidated unless the cause of failure has no effect on ambient data collection and passing results still meet

frequency criteria. Results in shaded cells either exceed documented criteria or are otherwise notable. Table 10 presents observations associated with the shaded cell results in Table 9.

Table 11 presents summary statistics of critical criteria measurements at trace-level gas monitoring sites collected during second quarter 2026. The statistics presented contain data validated at Level 2 and Level 3. All data associated with QC checks that fail to meet the criteria listed in Table 6 were or will be invalidated unless the cause of failure has no effect on ambient data collection and passing results still meet frequency criteria. Results in shaded cells either exceed documented criteria or are otherwise notable. Table 12 presents observations associated with the shaded cell results in Table 11.

**Laboratory Control Sample Analysis**

The laboratory control sample (LCS) is a reagent blank spiked with the target analytes from the established analytical methods and carried through the same extraction process that field samples must undergo. LCS analyses are performed by the laboratory to monitor for potential sample handling artifacts and provide a means to identify possible analyte loss from the extraction process. Figure 4 presents LCS analysis results for second quarter 2026. All recovery values were between 92 percent and 106 percent.

**Blank Results**

Figures 5 through 7 present the results of MB, LB, and FB QC sample analyses for second quarter 2026. All second quarter results were within criteria (two times the reporting limit) listed in Table 4 except the cellulose FB sample for April at EGB181, ON. This sample remained onsite for approximately two months and measured at 5.08 µg with a reporting limit of 2.0 µg. The April ambient concentrations were not unusual, and all other associated QC were within criteria.

**Suspect/Invalid Filter Pack Samples**

Filter pack samples that were flagged as suspect or invalid during second quarter 2026 are listed in Table 13. This table also includes associated site identification and a brief description of the reason the sample was flagged. During second quarter, one filter pack sample was invalidated.

**Field Problem Count**

Table 14 presents counts of field problems affecting continuous data collection for more than one day for second quarter 2026. The problem counts are sorted by a 30-, 60-, or 90-day time period to resolution. A category for unresolved problems is also included.

## References

American Society for Testing and Materials (ASTM). 2022. ASTM E29-22, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications. ASTM International, West Conshohocken, PA, DOI:10.1520/E0029-22. www.astm.org.

U.S. Environmental Protection Agency (EPA). 2025. Title 40 Code of Federal Regulations Part 58, "Appendix A to Part 58 – Quality Assurance Requirements for Monitors used in Evaluations of National Ambient Air Quality Standards." https://www.epa.gov/amtic/ambient-air-monitoring-quality-assurance (Accessed July 2026).

WSP USA Environment & Infrastructure Inc. (WSP). 2025. *Clean Air Status and Trends Network (CASTNET) Quality Assurance Project Plan (QAPP) Revision 10.2*. Prepared for U.S. Environmental Protection Agency (EPA), Office of Air and Radiation, Clean Air and Power Division, Washington, DC. Contract No. 68HERH21D0006. Gainesville, FL. https://www.epa.gov/castnet/documents-reports (Accessed July 2026).

**Table 1** NPAP and State Agency Audits of CASTNET Ozone Systems

| Site ID | Auditing Agency |
|---|---|
| ALC188, TX | NPAP (EPA Region 6) |
| KEF112, PA | Pennsylvania Department of Environmental Protection (DEP) |
| MKG113, PA | Pennsylvania DEP |
| SPD111, TN | NPAP (EPA Region 4) |

**Table 2** Data Validated to Level 3 through Second Quarter 2026

| Calibration Group* | Months Available | Number of Months | Complete Quarters | Number of Quarters |
|---|---|---|---|---|
| E-1/SE-5 | August 2025–January 2026 | 6 | Quarter 4 2025 | 1 |
| MW-7/W-9 | September 2025–February 2026 | 6 | Quarter 4 2025 | 1 |
| E-2/MW-8 | October 2025–March 2026 | 6 | Quarter 4 2025–Quarter 1 2026 | 2 |

**Note**: * The sites contained in each calibration group are listed in Table 3.

**Table 3** Field Calibration Schedule for 2026

| Calibration Group | Months Calibrated | Sites Calibrated | | | |
|---|---|---|---|---|---|
| Eastern Sites (18 Total) | | | | | |
| E-1 (7 Sites) | February/August | ARE128, PA<br>PED108, VA | BEL116, MD<br>VPI120, VA | BWR139, MD<br>WSP144, NJ | CTH110, NY |
| E-2 (6 Sites) | April/October | ABT147, CT<br>WFM105, NY | CAT175, NY<br>WST109, NH | EGB181, ON | NIC001, NY |
| E-3 (5 Sites) | May/November | CDR119, WV<br>PAR107, WV | KEF112, PA | LRL117, PA | MKG113, PA |
| Southeastern Sites (13 Total) | | | | | |
| SE-4 (7 Sites) | January/July | BFT142, NC<br>GAS153, GA | CND125, NC<br>SND152, AL | COW137, NC<br>SPD111, TN | DUK008, NC[1] |
| SE-5 (6 Sites) | February/August | CAD150, AR<br>MAR013, FL | CNS011, FL<br>SUM156, FL | CVL151, MS | IRL141, FL |
| Midwestern Sites (15 Total) | | | | | |
| MW-6 (4 Sites) | January/July | CKT136, KY | ESP127, TN | MCK131, KY | MCK231, KY |
| MW-7 (7 Sites) | March/September | BVL130, IL[2]<br>RED004, MN | OXF122, OH<br>STK138, IL[2] | PRK134, WI<br>VIN140, IN | QAK172, OH |
| MW-8 (4 Sites) | April/October | ANA115, MI | HOX148, MI | SAL133, IN | UVL124, MI |
| Western Sites (14 Total) | | | | | |
| W-9 (6 Sites) | March/September | ALC188, TX<br>KNZ184, KS | CHE185, OK<br>SAN192, NE[2] | CNO014, OK | HAS012, KS |
| W-10 (8 Sites) | May/November | CNT169, WY<br>PAL190, TX | GTH161, CO<br>PND165, WY | LPO010, CA<br>ROM206, CO | NPT006, ID<br>UMA009, WA |

**Notes**: [1] Trace-level gas calibrations are performed quarterly in January, April, July, and October.
[2] Trace-level gas calibrations are performed quarterly in March, June, September, and December.

**Table 4** Data Quality Indicators for CASTNET Laboratory Measurements

| Analyte | Method | Precision[1] (MARPD) | Accuracy[2] (%) | Nominal Reporting Limits[3] | |
|---|---|---|---|---|---|
| | | | | mg/L | µg/Filter |
| Ammonium ($NH_4^+$) | AC | 20 | 90–110 | 0.020* | 0.5 |
| Sodium ($Na^+$) | ICP-OES | 20 | 95–105 | 0.005 | 0.125 |
| Potassium ($K^+$) | ICP-OES | 20 | 95–105 | 0.006 | 0.15 |
| Magnesium ($Mg^{2+}$) | ICP-OES | 20 | 95–105 | 0.003 | 0.075 |
| Calcium ($Ca^{2+}$) | ICP-OES | 20 | 95–105 | 0.006 | 0.15 |
| Chloride ($Cl^-$) | IC | 20 | 95–105 | 0.020 | 0.5 |
| Nitrate ($NO_3^-$) | IC | 20 | 95–105 | 0.008* | 0.2 |
| Sulfate ($SO_4^{2-}$) | IC | 20 | 95–105 | 0.040 | 1.0 |

**Notes**: [1] This column lists precision goals for both network precision calculated from co-located filter samples and laboratory precision based on replicate samples for samples > five times the reporting limit. The criterion is ± the reporting limit if the sample is ≤ five times the reporting limit.
[2] This column lists laboratory accuracy goals based on reference standards and continuing calibration verification spikes. The criterion is 90–110 percent for ICP-OES reference standards.
[3] The reporting limit for sulfate on cellulose filters (reported as $SO_4^{2-}$ with correction factor applied) is 0.080 mg/L (2.0 µg/filter).

AC = automated colorimetry
IC = ion chromatography
ICP-OES = inductively coupled plasma-optical emission spectrometry
MARPD = mean absolute relative percent difference
mg/L = milligrams per liter
µg/Filter = micrograms per filter
* = as nitrogen

Values are rounded according to American Society for Testing and Materials (ASTM) E29-22, "Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications" (ASTM, 2022).

For more information on analytical methods and associated precision and accuracy criteria, see the CASTNET QAPP, (WSP, 2025).

**Table 5** Ozone Critical Criteria*

| Type Check | Analyzer Response |
|---|---|
| Zero | Less than ± 3.1 parts per billion (ppb) |
| Span | Less than ± 7.1 percent between supplied and observed concentrations |
| Single Point QC | Less than ± 7.1 percent between supplied and observed concentrations |

**Notes:** * Applies to CASTNET sites that are configured and operated in accordance with Part 58 of Title 40 of the Code of Federal Regulations (EPA, 2025). The minimum frequency for these checks is once every two weeks.

Values are rounded according to ASTM E29-22, "Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications" (ASTM, 2022).

**Table 6** Trace-level Gas Monitoring Critical Criteria*

| Parameter | Analyzer Response | |
|---|---|---|
| | Zero Check | Span Check / Single Point QC Check |
| $SO_2$ | Less than ± 1.51 ppb | Less than ± 10.1 percent between supplied and observed concentrations |
| $NO_y$ | Less than ± 1.51 ppb | |
| CO | Less than ± 50 ppb | |

**Notes**: *Applies to CASTNET sites that are configured and operated in accordance with Part 58 of Title 40 of the Code of Federal Regulations (EPA, 2025). The minimum frequency for these checks is once every two weeks.

Values are rounded according to ASTM E29-22, "Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications" (ASTM, 2022).

$SO_2$ = sulfur dioxide
$NO_y$ = total reactive oxides of nitrogen
CO = carbon monoxide
ppb = parts per billion

**Table 7** QC Analysis Count for Second Quarter 2026

| Filter Type | Parameter | RF Sample Count | CCV Sample Count | RP Sample Count | MB Sample Count | LB Sample Count | FB Sample Count |
|---|---|---|---|---|---|---|---|
| Teflon | $SO_4^{2-}$ | 58 | 170 | 69 | 14 | 22 | 41 |
| | $NO_3^-$ | 58 | 170 | 69 | 14 | 22 | 41 |
| | $NH_4^+$ | 42 | 150 | 67 | 14 | 22 | 41 |
| | $Cl^-$ | 58 | 170 | 69 | 14 | 22 | 41 |
| | $Ca^{2+}$ | 28 | 155 | 68 | 14 | 22 | 41 |
| | $Mg^{2+}$ | 28 | 155 | 68 | 14 | 22 | 41 |
| | $Na^+$ | 28 | 155 | 68 | 14 | 22 | 41 |
| | $K^+$ | 28 | 155 | 68 | 14 | 22 | 41 |
| Nylon | $SO_4^{2-}$ | 39 | 154 | 65 | 13 | 22 | 41 |
| | $HNO_3$ | 39 | 154 | 65 | 13 | 22 | 41 |
| Cellulose | $SO_2$ | 22 | 47 | 16 | 8 | 22 | 9 |

**Table 8** Filter Pack Receipt Summary for Second Quarter 2026

| | |
|---|---|
| Count of samples received more than 14 days after removal from tower: | 22 |
| Count of all samples received: | 750 |
| Fraction of samples received within 14 days: | 0.971 |
| Average interval in days: | 4.983 |
| First receipt date: | 04/02/2026 |
| Last receipt date: | 06/29/2026 |

**Note**: Sample shipments for the Egbert, Ontario site (EGB181) are sent in groups of four. Samples associated with EGB181 are excluded from this statistic.

**Table 9** Ozone QC Summary for Second Quarter 2026 (1 of 2)

| Site ID | % Span Pass[1] | Span [%D][2] | % Single Point QC Pass[1] | Single Point QC [%D][2] | % Zero Pass[1] | Zero Average (ppb)[2] |
|---|---|---|---|---|---|---|
| ABT147, CT | 100.00 | 1.95 | 100.00 | 2.69 | 100.00 | 0.17 |
| ALC188, TX | 100.00 | 0.49 | 100.00 | 0.68 | 100.00 | 0.49 |
| ANA115, MI | 100.00 | 1.85 | 100.00 | 1.50 | 100.00 | 0.22 |
| ARE128, PA | 100.00 | 1.58 | 98.82 | 2.80 | 96.30 | 1.51 |
| BEL116, MD | 100.00 | 1.45 | 93.42 | 3.51 | 75.00 | 2.15 |
| BFT142, NC | 100.00 | 1.72 | 100.00 | 1.65 | 100.00 | 0.23 |
| BVL130, IL | 100.00 | 1.27 | 100.00 | 1.56 | 100.00 | 0.20 |
| BWR139, MD | 100.00 | 2.18 | 100.00 | 2.84 | 100.00 | 0.29 |
| CAD150, AR | 100.00 | 0.92 | 100.00 | 0.93 | 100.00 | 0.68 |
| CDR119, WV | 100.00 | 1.05 | 100.00 | 1.07 | 100.00 | 0.33 |
| CKT136, KY | 98.94 | 0.67 | 100.00 | 0.90 | 98.94 | 0.20 |
| CND125, NC | 100.00 | 0.79 | 100.00 | 1.69 | 100.00 | 0.29 |
| CNT169, WY | 100.00 | 0.86 | 100.00 | 1.00 | 100.00 | 0.23 |
| COW137, NC | 98.94 | 1.77 | 98.94 | 1.69 | 100.00 | 0.70 |
| CTH110, NY | 98.97 | 0.94 | 98.97 | 1.54 | 100.00 | 0.45 |
| CVL151, MS | 86.73 | 14.17 | 86.73 | 14.38 | 100.00 | 0.48 |
| DUK008, NC | 83.51 | 16.16 | 83.51 | 11.04 | 83.51 | 5.83 |
| ESP127, TN | 100.00 | 2.02 | 100.00 | 1.44 | 100.00 | 0.39 |
| GAS153, GA | 100.00 | 1.21 | 100.00 | 2.79 | 96.84 | 1.27 |
| GTH161, CO | 100.00 | 0.87 | 100.00 | 0.84 | 100.00 | 0.32 |
| HAS012, KS | 100.00 | 2.75 | 98.91 | 1.82 | 100.00 | 0.85 |
| HOX148, MI | 100.00 | 0.46 | 100.00 | 1.00 | 100.00 | 0.28 |
| IRL141, FL | 100.00 | 2.50 | 100.00 | 2.36 | 97.73 | 0.94 |
| KEF112, PA | 100.00 | 2.05 | 100.00 | 1.90 | 100.00 | 0.34 |
| LPO010, CA | 95.60 | 5.64 | 95.51 | 5.43 | 95.51 | 2.37 |
| LRL117, PA | 97.89 | 1.88 | 98.95 | 1.44 | 98.95 | 0.30 |
| MCK131, KY | 100.00 | 0.58 | 100.00 | 0.81 | 100.00 | 0.56 |
| MCK231, KY | 98.92 | 0.60 | 100.00 | 1.18 | 100.00 | 0.69 |
| MKG113, PA | 92.86 | 4.73 | 91.84 | 4.69 | 98.98 | 0.56 |
| NPT006, ID | 91.78 | 6.26 | 93.06 | 6.74 | 94.44 | 1.96 |
| OXF122, OH | 100.00 | 1.93 | 100.00 | 2.36 | 100.00 | 0.27 |
| PAL190, TX | 100.00 | 0.71 | 100.00 | 1.03 | 100.00 | 0.18 |
| PAR107, WV | 100.00 | 0.41 | 100.00 | 0.65 | 100.00 | 0.14 |
| PED108, VA | 100.00 | 1.89 | 100.00 | 1.95 | 100.00 | 0.33 |
| PND165, WY | 100.00 | 2.13 | 100.00 | 2.03 | 100.00 | 0.17 |
| PRK134, WI | 100.00 | 0.68 | 98.95 | 1.01 | 97.89 | 0.28 |
| PSU106, PA | 95.74 | 3.15 | 98.94 | 2.97 | 98.94 | 0.51 |
| QAK172, OH | 100.00 | 1.95 | 100.00 | 2.01 | 100.00 | 0.28 |
| ROM206, CO | 100.00 | 1.78 | 100.00 | 2.63 | 100.00 | 0.30 |
| SAL133, IN | 95.79 | 1.80 | 98.95 | 1.31 | 100.00 | 0.32 |
| SAN192, NE | 100.00 | 2.73 | 100.00 | 3.53 | 100.00 | 0.63 |
| SND152, AL | 97.03 | 1.20 | 98.02 | 1.99 | 99.01 | 1.14 |
| SPD111, TN | 98.86 | 3.38 | 100.00 | 3.10 | 100.00 | 0.21 |
| STK138, IL | 98.96 | 1.56 | 98.92 | 1.51 | 100.00 | 0.28 |

**Table 9** Ozone QC Summary for Second Quarter 2026 (2 of 2)

| Site ID | % Span Pass[1] | Span [%D][2] | % Single Point QC Pass[1] | Single Point QC [%D][2] | % Zero Pass[1] | Zero Average (ppb)[2] |
|---|---|---|---|---|---|---|
| SUM156, FL | 100.00 | 0.75 | 100.00 | 1.23 | 100.00 | 0.35 |
| UMA009, WA | 97.67 | 2.10 | 97.67 | 1.59 | 97.67 | 1.10 |
| UVL124, MI | 65.63 | 19.81 | 68.75 | 14.42 | 96.88 | 0.87 |
| VIN140, IN | 100.00 | 0.65 | 100.00 | 0.82 | 100.00 | 0.27 |
| VPI120, VA | 94.85 | 1.76 | 98.97 | 1.53 | 98.97 | 0.76 |
| WSP144, NJ | 98.92 | 1.03 | 100.00 | 1.02 | 100.00 | 0.45 |
| WST109, NH | 98.78 | 0.93 | 100.00 | 1.06 | 98.78 | 0.44 |

**Notes**: [1]Percentage of comparisons that pass the criteria listed in Table 5. Values falling below 90 percent are addressed in Table 10.
[2]Absolute value of the average percent differences between the on-site transfer standard and the site monitor. Values exceeding the criteria listed in Table 5 are addressed in Table 10.
%D = percent difference
ppb = parts per billion

**Table 10** Ozone QC Observations for Second Quarter 2026

| Site ID | QC Criterion | Comments |
|---|---|---|
| BEL116, MD | % Zero Pass | Due to analyzer malfunction. Associated data were invalidated. |
| CVL151, MS | % Span Pass<br>Span \|%D\|<br>% Single Point QC Pass<br>Single Point QC \|%D\| | Due to analyzer malfunction. Associated data were invalidated. |
| DUK008, NC | % Span Pass<br>Span \|%D\|<br>% Single Point QC Pass<br>Single Point QC \|%D\|<br>% Zero Pass<br>Zero Average | Due to analyzer malfunction. Associated data were invalidated. |
| UVL124, MI | % Span Pass<br>Span \|%D\|<br>% Single Point QC Pass<br>Single Point QC \|%D\| | Due to a leak in the sampling train. Associated data were invalidated. |

**Note:** %D = percent difference

**Table 11** Trace-level Gas QC Summary for Second Quarter 2026

| Parameter | % Span Pass[1] | Span [%D][2] | % Single Point QC Pass[1] | Single Point QC [%D][2] | % Zero Pass[1] | Zero Average (ppb)[2] |
|---|---|---|---|---|---|---|
| BVL130, IL | | | | | | |
| $SO_2$ | 100.0 | 0.50 | 100.0 | 0.77 | 100.0 | 0.26 |
| $NO_y$ | 62.50 | 7.31 | 62.50 | 7.95 | 97.92 | 0.53 |
| CO | 100.0 | 3.28 | 87.50 | 5.89 | 85.71 | 31.89 |
| DUK008, NC | | | | | | |
| $NO_y$ | 100.0 | 4.55 | 97.73 | 6.00 | 94.74 | 1.13 |
| SAN192, NE | | | | | | |
| $NO_y$ | 100.0 | 1.95 | 97.73 | 4.40 | 90.91 | 1.24 |
| STK138, IL | | | | | | |
| $NO_y$ | 92.68 | 4.16 | 90.24 | 5.30 | 94.74 | 0.74 |

**Notes**: [1]Percentage of comparisons that pass the criteria listed in Table 6. Values falling below 90 percent are addressed in Table 12.
[2]Absolute value of the average percent differences between the supplied and observed concentrations. Values exceeding the criteria listed in Table 6are addressed in Table 12.

%D = percent difference
ppb = parts per billion

**Table 12** Trace-level Gas QC Observations for Second Quarter 2026

| Site ID | Parameter | QC Criterion | Comments |
|---|---|---|---|
| BVL130, IL | $NO_y$ | % Span Pass<br>% Single Point QC Pass | Due to photomultiplier tube cooler malfunction in April and calibration drift in May. Associated data were invalidated. |
| BVL130, IL | CO | % Single Point QC Pass<br>% Zero Pass | Data associated with QC failures were invalidated. |

**Note:** %D = percent difference

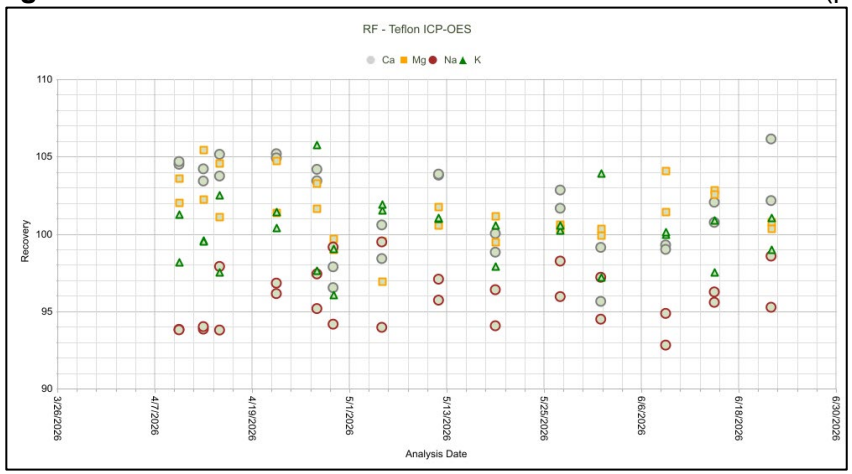
**Table 13** Filter Packs Flagged as Suspect or Invalid During Second Quarter 2026

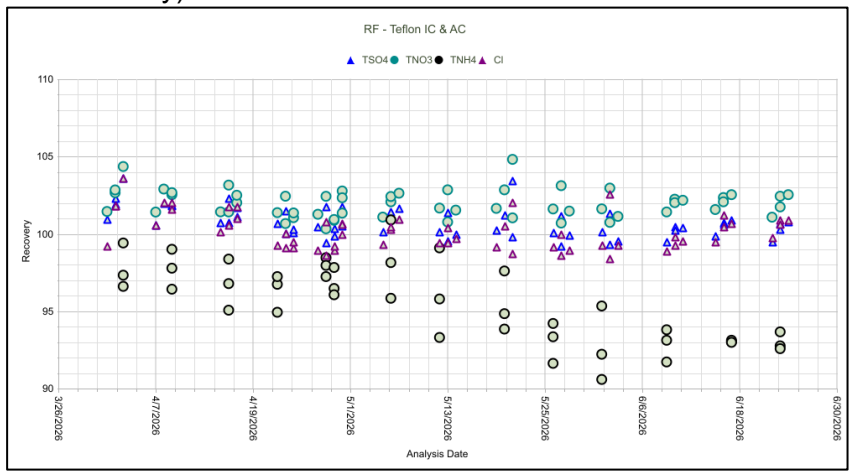
| Site ID | Sample No. | Reason |
|---|---|---|
| ALB801, ON | 2618006-01 | May through June flow data were not in the database at the time of review. These data should be available during third quarter. |

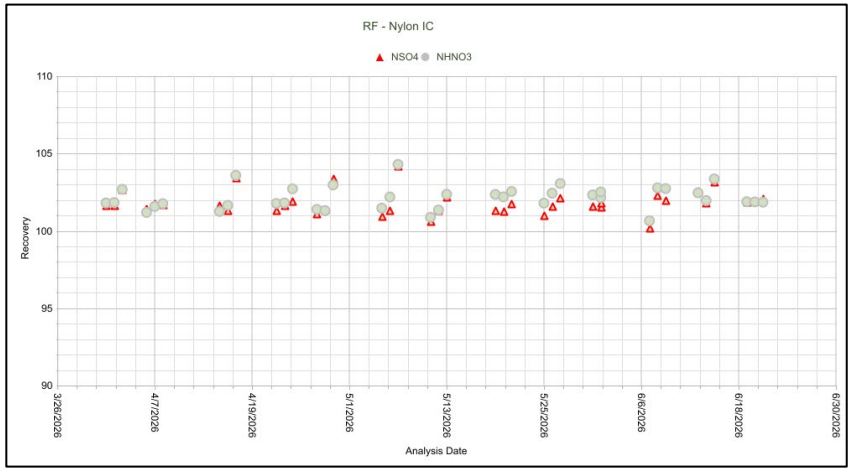
**Table 14** Field Problems Affecting Data Collection

| Days to Resolution | Problem Count |
|---|---|
| 30 | 291 |
| 60 | 18 |
| 90 | 1 |
| Unresolved by end of quarter | 0 |

**Figure 1** Reference Standard Results for Second Quarter 2026 (percent recovery)



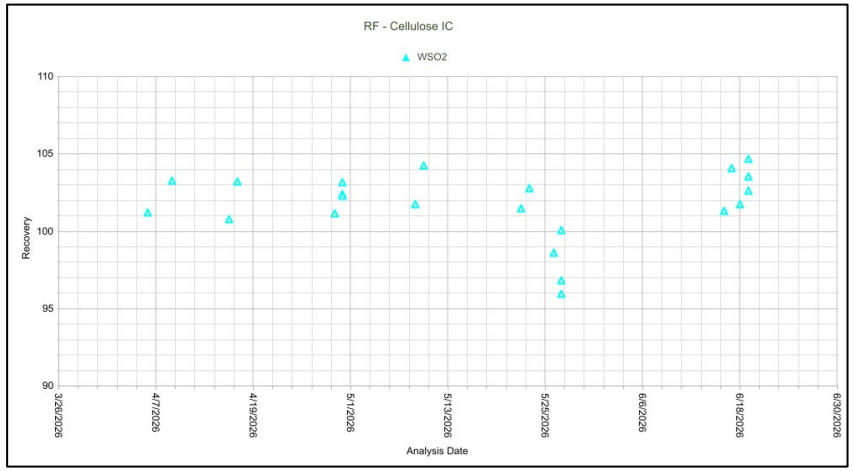
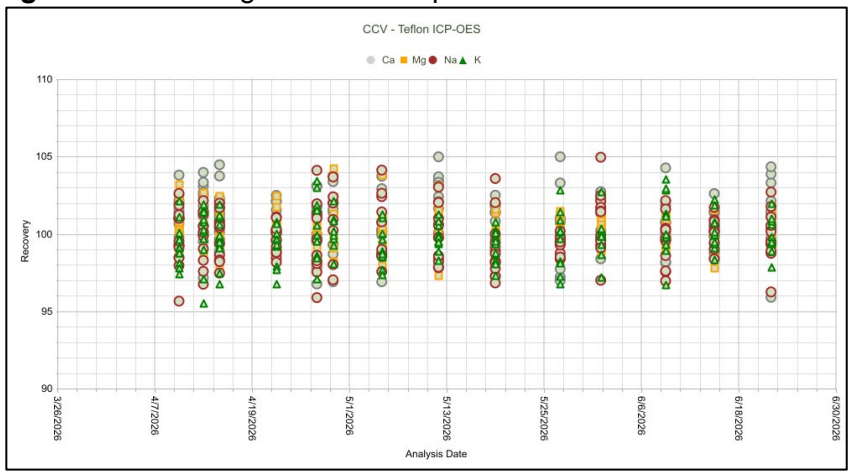
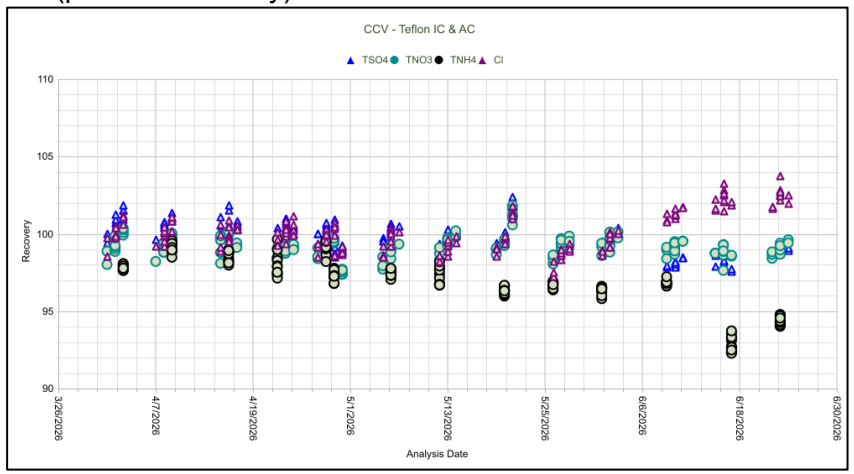
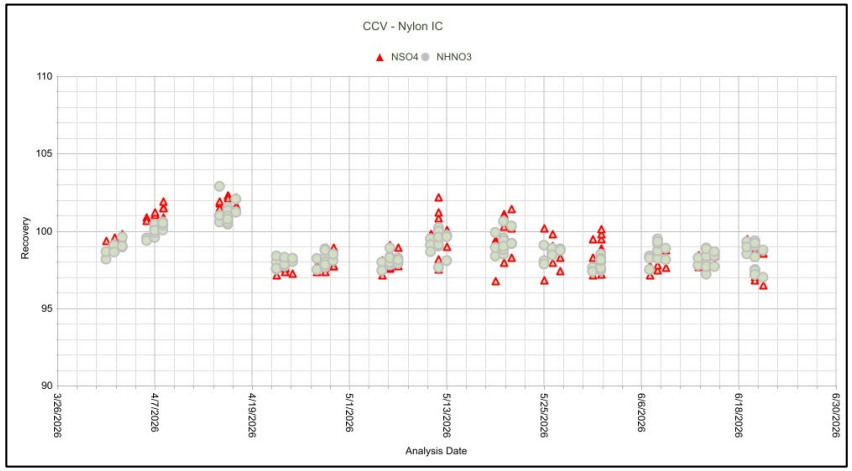



**Figure 2** Continuing Calibration Spike Results for Second Quarter 2026 (percent recovery)



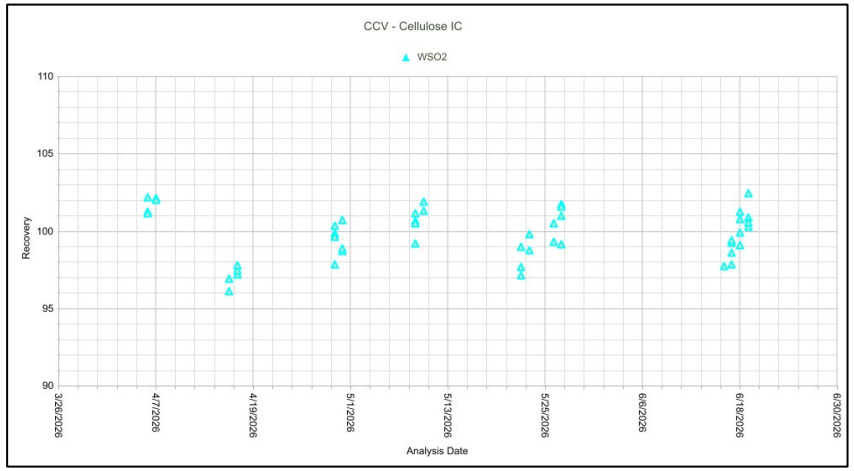
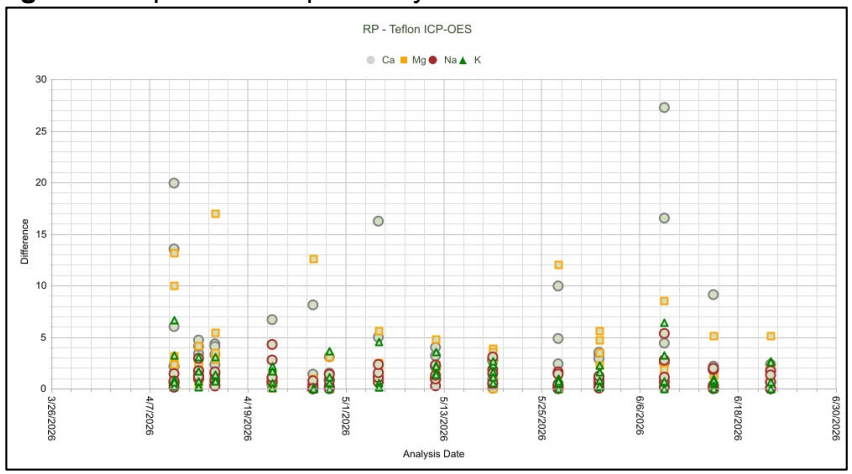
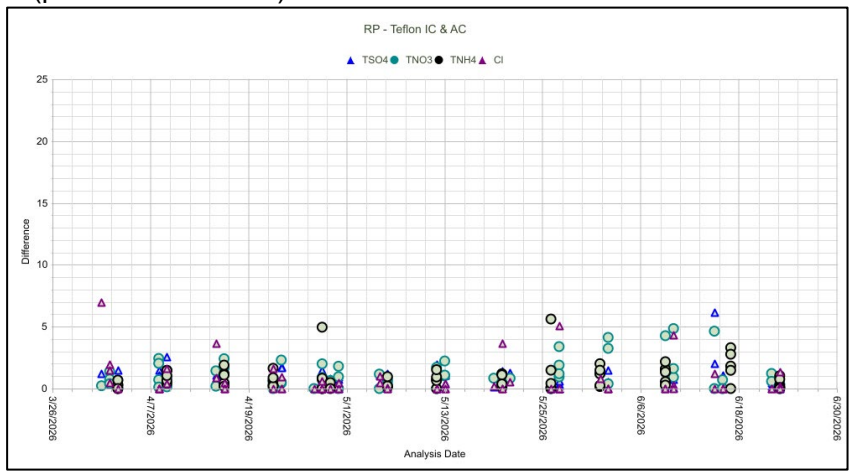
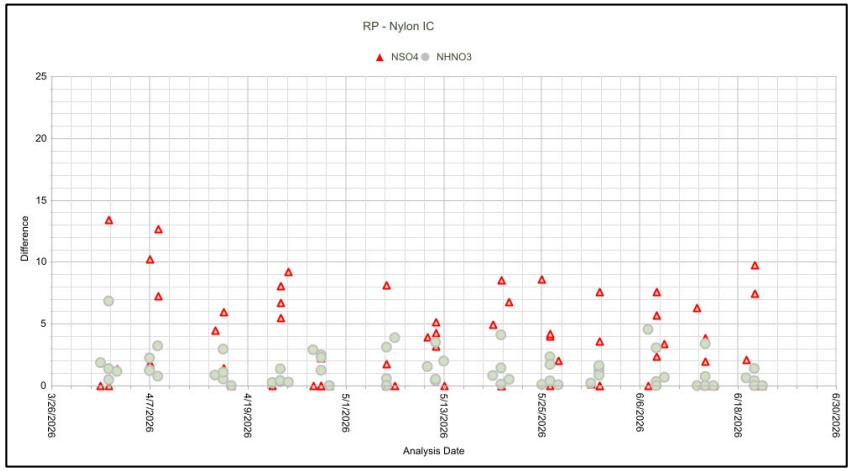



**Figure 3** Replicate Sample Analysis Results for Second Quarter 2026 (percent difference)



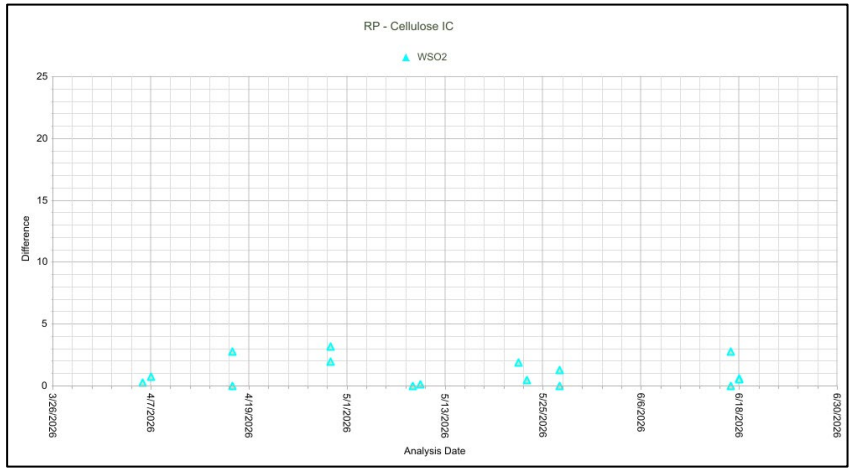
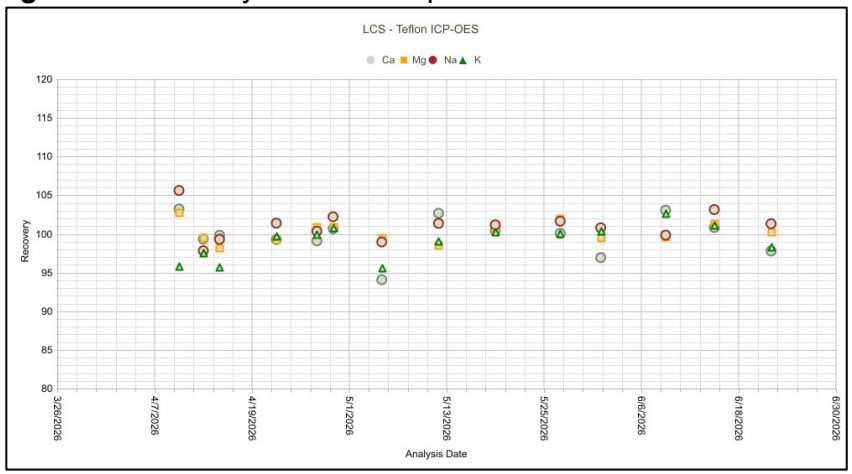
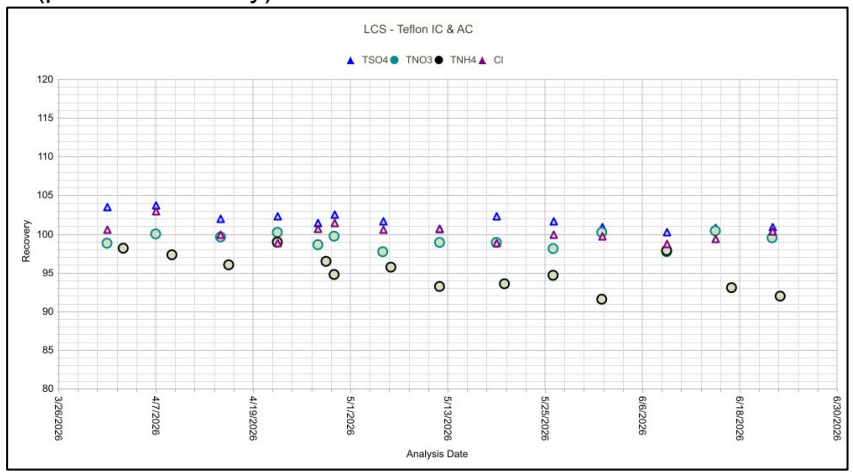
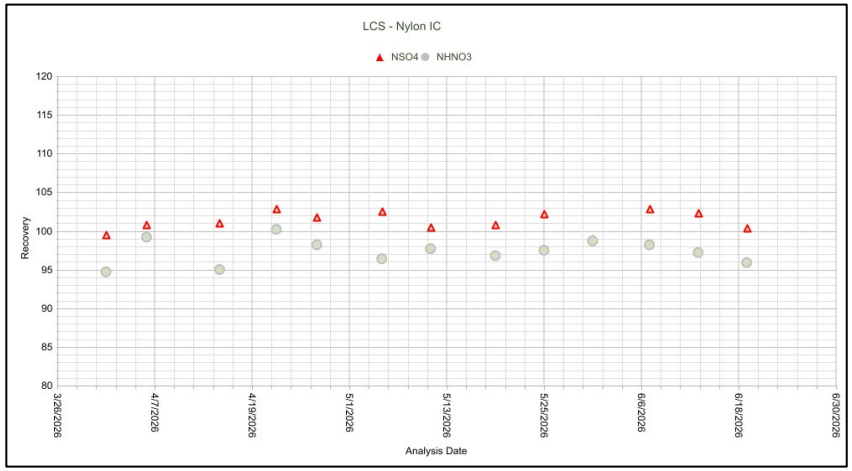



**Figure 4** Laboratory Control Sample Results for Second Quarter 2026 (percent recovery)



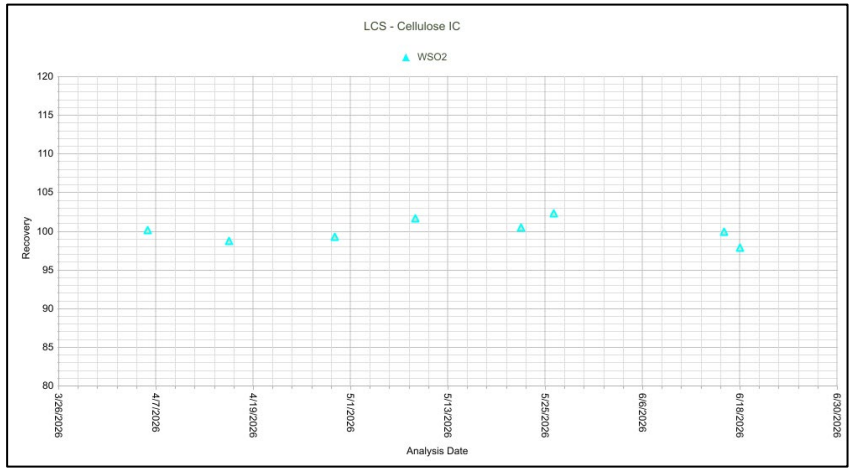
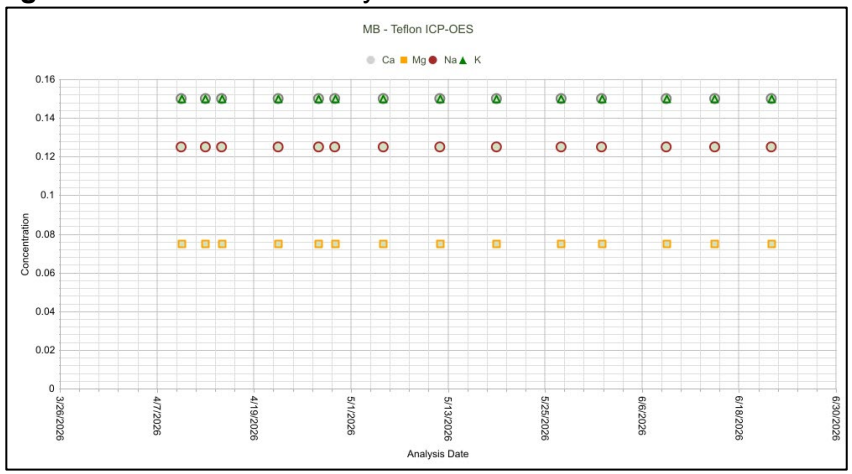
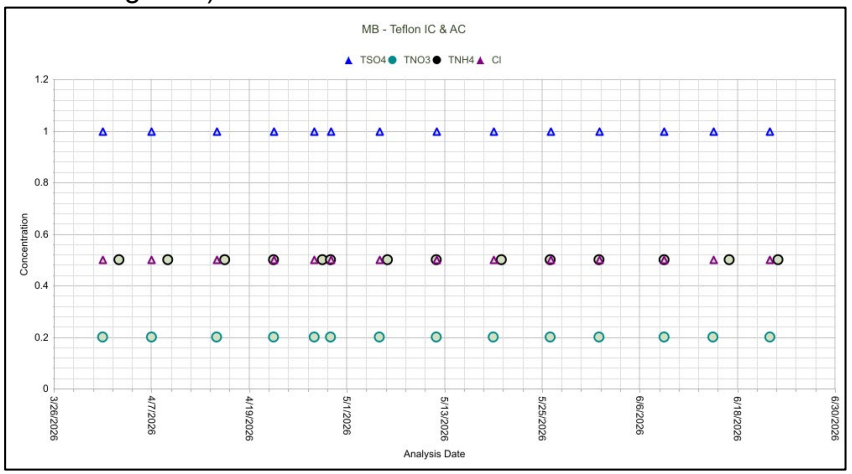
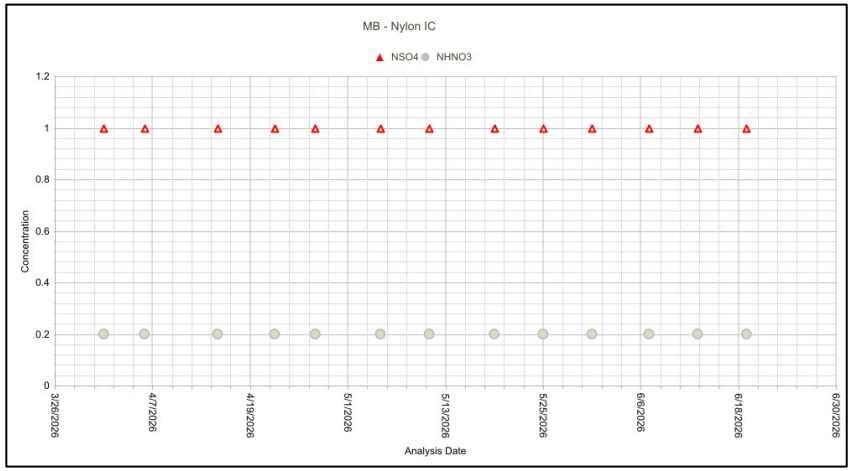



**Figure 5** Method Blank Analysis Results for Second Quarter 2026 (total micrograms)



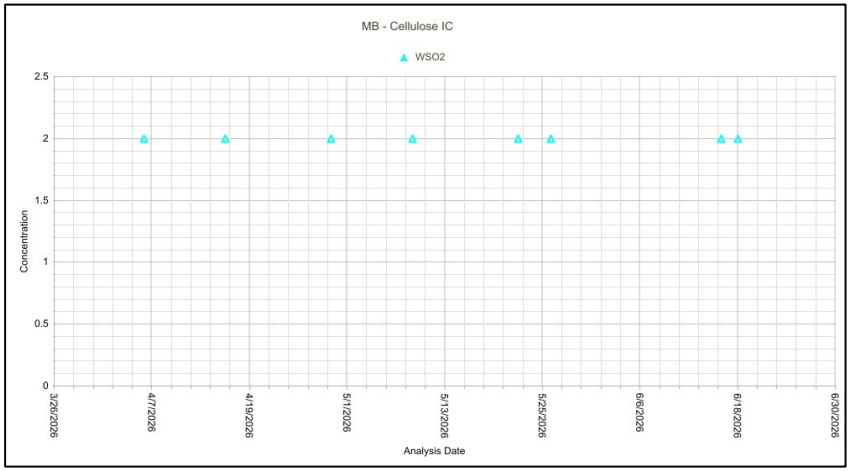
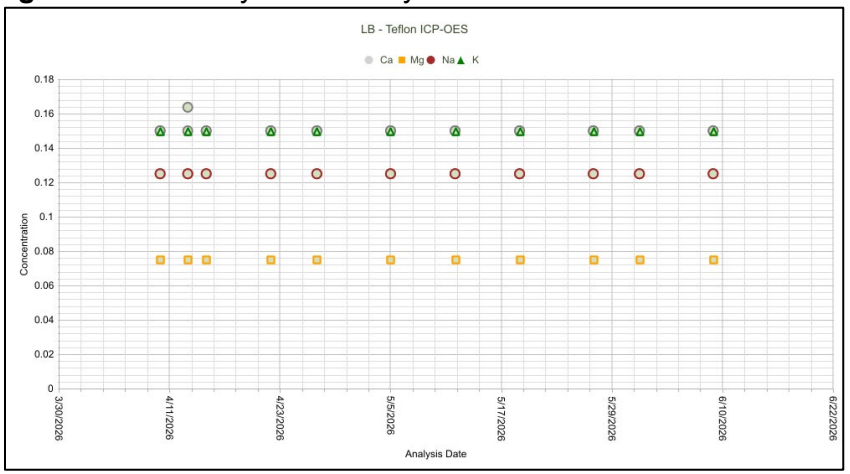
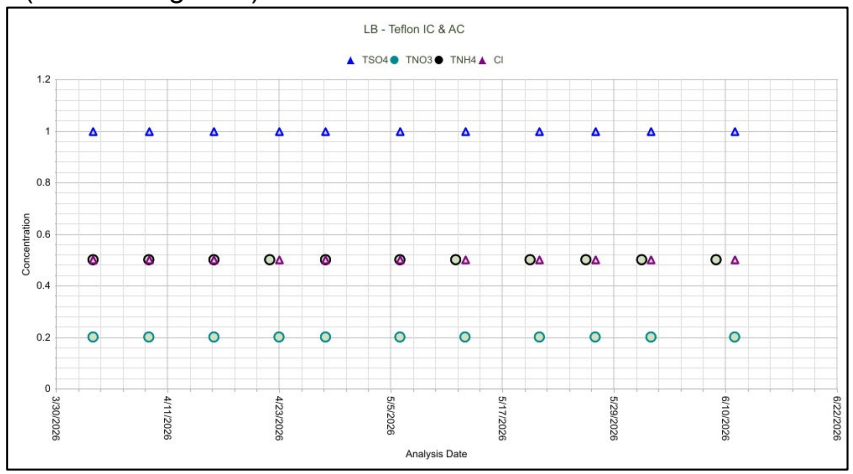
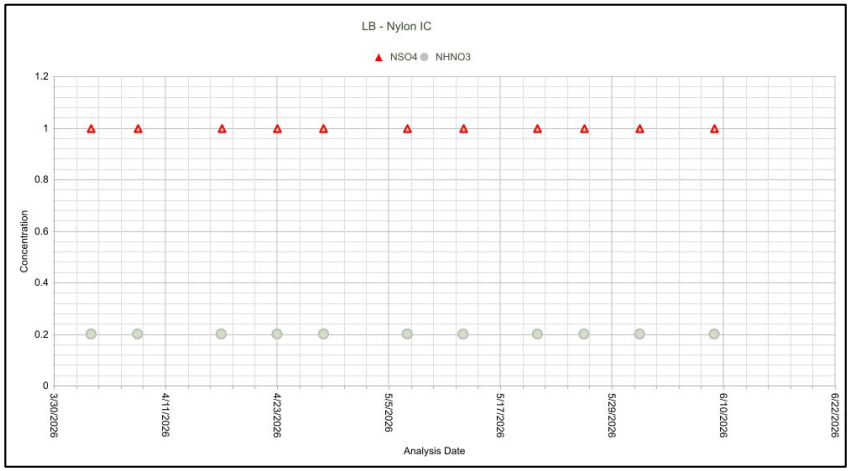



**Figure 6** Laboratory Blank Analysis Results for Second Quarter 2026 (total micrograms)



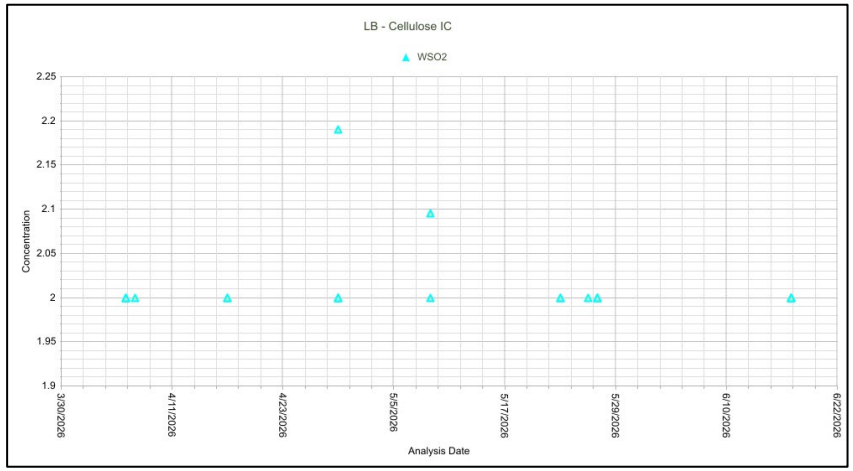



**Figure 7** Field Blank Analysis Results for Second Quarter 2026 (total micrograms)