

## Cover Page

**Order ID :** P5006

**Project ID :** 540 Degraw St, Brooklyn, NY - E9309

**Client :** ENTACT

### Lab Sample Number

P5006-01  
P5006-02  
P5006-03  
P5006-04  
P5006-05  
P5006-06  
P5006-07  
P5006-08  
P5006-09  
P5006-10  
P5006-11  
P5006-12  
P5006-13  
P5006-14  
P5006-15  
P5006-16  
P5006-17  
P5006-18

### Client Sample Number

SPLP-C4-2  
SPLP-C4-3  
SPLP-C5-1  
SPLP-C5-2  
SPLP-C5-3  
SPLP-C6-1  
SPLP-C6-2  
SPLP-C6-3  
SPLP-C10-1  
SPLP-C10-2  
SPLP-C10-3  
SPLP-C11-1  
SPLP-C11-2  
SPLP-C11-3  
SPLP-C12-1  
SPLP-C12-2  
SPLP-C12-3  
TW-WTS-02

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : \_\_\_\_\_

Date: 12/3/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

## DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following “ Results Qualifiers” are used:

|           |                                                                                                                                                                                                                                                                                                                                                                               |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>J</b>  | Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).                                                                                                                                                                                  |
| <b>U</b>  | Indicates the analyte was analyzed for, but not detected.                                                                                                                                                                                                                                                                                                                     |
| <b>ND</b> | Indicates the analyte was analyzed for, but not detected                                                                                                                                                                                                                                                                                                                      |
| <b>E</b>  | Indicates the reported value is estimated because of the presence of interference                                                                                                                                                                                                                                                                                             |
| <b>M</b>  | Indicates Duplicate injection precision not met.                                                                                                                                                                                                                                                                                                                              |
| <b>N</b>  | Indicates the spiked sample recovery is not within control limits.                                                                                                                                                                                                                                                                                                            |
| <b>S</b>  | Indicates the reported value was determined by the Method of Standard Addition (MSA).                                                                                                                                                                                                                                                                                         |
| <b>*</b>  | Indicates that the duplicate analysis is not within control limits.                                                                                                                                                                                                                                                                                                           |
| <b>+</b>  | Indicates the correlation coefficient for the MSA is less than 0.995.                                                                                                                                                                                                                                                                                                         |
| <b>D</b>  | Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.                                                                                                                                                                                                                                       |
| <b>M</b>  | Method qualifiers<br>“P” for ICP instrument<br>“PM” for ICP when Microwave Digestion is used<br>“CV” for Manual Cold Vapor AA<br>“AV” for automated Cold Vapor AA<br>“CA” for MIDI-Distillation Spectrophotometric<br>“AS” for Semi -Automated Spectrophotometric<br>“C” for Manual Spectrophotometric<br>“T” for Titrimetric<br>“NR” for analyte not required to be analyzed |
| <b>OR</b> | Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.                                                                                                                                                                                                                                                              |
| <b>Q</b>  | Indicates the LCS did not meet the control limits requirements                                                                                                                                                                                                                                                                                                                |
| <b>H</b>  | Sample Analysis Out Of Hold Time                                                                                                                                                                                                                                                                                                                                              |

**APPENDIX A**

**QA REVIEW GENERAL DOCUMENTATION**

Project #: P5006

Completed

For thorough review, the report must have the following:

**GENERAL:**

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

**COVER PAGE:**

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

**CHAIN OF CUSTODY:**

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

**ANALYTICAL:**

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: NILESH PRAJAPATI

Date: 12/03/2024

## LAB CHRONICLE

|                 |                 |                   |                                     |
|-----------------|-----------------|-------------------|-------------------------------------|
| <b>OrderID:</b> | P5006           | <b>OrderDate:</b> | 11/26/2024 11:21:00 AM              |
| <b>Client:</b>  | ENTACT          | <b>Project:</b>   | 540 Degraw St, Brooklyn, NY - E9309 |
| <b>Contact:</b> | Jarod Stanfield | <b>Location:</b>  | L51,VOA Ref. #3 Water               |

| LabID                   | ClientID            | Matrix       | Test                | Method                                          | Sample Date               | Prep Date | Anal Date         | Received        |
|-------------------------|---------------------|--------------|---------------------|-------------------------------------------------|---------------------------|-----------|-------------------|-----------------|
| <b>P5006-18</b>         | <b>TW-WTS-02</b>    | <b>WATER</b> |                     |                                                 | <b>11/25/24<br/>15:30</b> |           |                   | <b>11/26/24</b> |
|                         |                     |              | Anions Group4       | 300.0                                           |                           |           | 11/26/24<br>15:02 |                 |
|                         |                     |              | BOD5                | SM5210 B                                        |                           |           | 11/27/24<br>15:10 |                 |
|                         |                     |              | Flash Point         | 1010B                                           |                           |           | 12/02/24<br>13:10 |                 |
|                         |                     |              | Hexavalent Chromium | 7196A                                           |                           |           | 11/26/24<br>16:34 |                 |
|                         |                     |              | pH                  | 9040C                                           |                           |           | 11/26/24<br>15:57 |                 |
|                         |                     |              | TKN                 | SM4500-N<br>Org C-11 plus<br>NH3 B plus<br>G-11 |                           | 12/02/24  | 12/03/24<br>10:04 |                 |
|                         |                     |              | Total Nitrogen      | Cal                                             |                           |           | 12/03/24<br>10:04 |                 |
|                         |                     |              | TS                  | SM2540 B                                        |                           |           | 11/26/24<br>11:00 |                 |
|                         |                     |              | TSS                 | SM2540 D                                        |                           |           | 11/27/24<br>08:30 |                 |
| <b>P5006-18DL</b>       | <b>TW-WTS-02DL</b>  | <b>WATER</b> |                     |                                                 | <b>11/25/24<br/>15:30</b> |           |                   | <b>11/26/24</b> |
|                         |                     |              | Anions Group4       | 300.0                                           |                           |           | 11/26/24<br>16:07 |                 |
| <b>P5006-18DL<br/>2</b> | <b>TW-WTS-02DL2</b> | <b>WATER</b> |                     |                                                 | <b>11/25/24<br/>15:30</b> |           |                   | <b>11/26/24</b> |
|                         |                     |              | Anions Group4       | 300.0                                           |                           |           | 11/26/24<br>16:28 |                 |



# SAMPLE DATA

## Report of Analysis

|                   |                                     |                 |                |
|-------------------|-------------------------------------|-----------------|----------------|
| Client:           | ENTACT                              | Date Collected: | 11/25/24 15:30 |
| Project:          | 540 Degraw St, Brooklyn, NY - E9309 | Date Received:  | 11/26/24       |
| Client Sample ID: | TW-WTS-02                           | SDG No.:        | P5006          |
| Lab Sample ID:    | P5006-18                            | Matrix:         | WATER          |
|                   |                                     | % Solid:        | 0              |

| Parameter                     | Conc.  | Qua. | DF | MDL    | LOQ / CRQL | Units | Prep Date      | Date Ana.      | Ana Met.                                |
|-------------------------------|--------|------|----|--------|------------|-------|----------------|----------------|-----------------------------------------|
| Chloride                      | 261    | OR   | 1  | 0.011  | 0.60       | mg/L  |                | 11/26/24 15:02 | 300.0                                   |
| Nitrite                       | 0.011  | U    | 1  | 0.011  | 0.60       | mg/L  |                | 11/26/24 15:02 | 300.0                                   |
| Nitrate                       | 9.80   | OR   | 1  | 0.0034 | 0.50       | mg/L  |                | 11/26/24 15:02 | 300.0                                   |
| Nitrate+Nitrite               | 9.40   |      | 1  | 0.020  | 1.60       | mg/L  |                | 11/26/24 15:02 | 300.0                                   |
| BOD5                          | 33.8   |      | 1  | 0.17   | 2.00       | mg/L  |                | 11/27/24 15:10 | SM 5210 B-16                            |
| Flash Point                   | >212   |      | 1  | 0      | 0          | o F   |                | 12/02/24 13:10 | 1010B                                   |
| Dissolved Hexavalent Chromium | 0.0030 | U    | 1  | 0.0030 | 0.010      | mg/L  |                | 11/26/24 16:34 | 7196A                                   |
| pH                            | 6.10   | H    | 1  | 0      | 0          | pH    |                | 11/26/24 15:57 | 9040C                                   |
| TKN                           | 0.90   |      | 1  | 0.18   | 0.50       | mg/L  | 12/02/24 09:15 | 12/03/24 10:04 | SM4500-N Org C-11 plus NH3 B plus G-11  |
| Nitrogen                      | 10.3   |      | 1  | 0.31   | 1.30       | mg/L  |                | 12/03/24 10:04 | SM 4500-N Org C-11 plus NH3 B plus G-11 |
| TS                            | 693    |      | 1  | 1.00   | 5.00       | mg/L  |                | 11/26/24 11:00 | SM 2540 B-15                            |
| TSS                           | 4.00   |      | 1  | 1.00   | 4.00       | mg/L  |                | 11/27/24 08:30 | SM 2540 D-15                            |

Comments: Other method reference for flash point : Pensky-Martens Closed Cup Flash Point ASTM D 93 - IP 34, pH result reported at temperature

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

## Report of Analysis

|                   |                                     |                 |                |
|-------------------|-------------------------------------|-----------------|----------------|
| Client:           | ENTACT                              | Date Collected: | 11/25/24 15:30 |
| Project:          | 540 Degraw St, Brooklyn, NY - E9309 | Date Received:  | 11/26/24       |
| Client Sample ID: | TW-WTS-02DL                         | SDG No.:        | P5006          |
| Lab Sample ID:    | P5006-18DL                          | Matrix:         | WATER          |
|                   |                                     | % Solid:        | 0              |

| Parameter | Conc. | Qua. | DF | MDL    | LOQ / CRQL | Units | Prep Date | Date Ana.      | Ana Met. |
|-----------|-------|------|----|--------|------------|-------|-----------|----------------|----------|
| Chloride  | 231   | OR   | 2  | 0.022  | 1.20       | mg/L  |           | 11/26/24 16:07 | 300.0    |
| Nitrate   | 9.40  | D    | 2  | 0.0068 | 1.00       | mg/L  |           | 11/26/24 16:07 | 300.0    |

Comments: \_\_\_\_\_

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

|                   |                                     |                 |                |
|-------------------|-------------------------------------|-----------------|----------------|
| Client:           | ENTACT                              | Date Collected: | 11/25/24 15:30 |
| Project:          | 540 Degraw St, Brooklyn, NY - E9309 | Date Received:  | 11/26/24       |
| Client Sample ID: | TW-WTS-02DL2                        | SDG No.:        | P5006          |
| Lab Sample ID:    | P5006-18DL2                         | Matrix:         | WATER          |
|                   |                                     | % Solid:        | 0              |

| Parameter | Conc. | Qua. | DF | MDL  | LOQ / CRQL | Units | Prep Date | Date Ana.      | Ana Met. |
|-----------|-------|------|----|------|------------|-------|-----------|----------------|----------|
| Chloride  | 182   | D    | 50 | 0.55 | 30.0       | mg/L  |           | 11/26/24 16:28 | 300.0    |

Comments: \_\_\_\_\_

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits



# QC RESULT SUMMARY



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,  
Fax : 908 789 8922

### Initial and Continuing Calibration Verification

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**RunNo.:** LB133640

| Analyte                                       | Units | Result | True Value | %<br>Recovery | Acceptance<br>Window (%R) | Analysis<br>Date |
|-----------------------------------------------|-------|--------|------------|---------------|---------------------------|------------------|
| Sample ID: <b>ICV</b><br>Hexavalent Chromium  | mg/L  | 0.499  | 0.5        | 100           | 90-110                    | 11/26/2024       |
| Sample ID: <b>CCV1</b><br>Hexavalent Chromium | mg/L  | 0.502  | 0.5        | 100           | 90-110                    | 11/26/2024       |
| Sample ID: <b>CCV2</b><br>Hexavalent Chromium | mg/L  | 0.484  | 0.5        | 97            | 90-110                    | 11/26/2024       |

## Initial and Continuing Calibration Verification

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**RunNo.:** LB133643

| Analyte                | Units | Result | True Value | % Recovery | Acceptance Window (%R) | Analysis Date |
|------------------------|-------|--------|------------|------------|------------------------|---------------|
| <b>Sample ID: ICV1</b> |       |        |            |            |                        |               |
| Bromide                | mg/L  | 10     | 10         | 100        | 90-110                 | 11/18/2024    |
| Chloride               | mg/L  | 3      | 3          | 100        | 90-110                 | 11/18/2024    |
| Fluoride               | mg/L  | 2      | 2          | 100        | 90-110                 | 11/18/2024    |
| Nitrite                | mg/L  | 3      | 3          | 100        | 90-110                 | 11/18/2024    |
| Nitrate                | mg/L  | 2.5    | 2.5        | 100        | 90-110                 | 11/18/2024    |
| Sulfate                | mg/L  | 14.6   | 15         | 97         | 90-110                 | 11/18/2024    |
| Orthophosphate as P    | mg/L  | 5      | 5          | 100        | 90-110                 | 11/18/2024    |
| <b>Sample ID: CCV1</b> |       |        |            |            |                        |               |
| Bromide                | mg/L  | 10     | 10         | 100        | 90-110                 | 11/26/2024    |
| Chloride               | mg/L  | 2.9    | 3          | 97         | 90-110                 | 11/26/2024    |
| Fluoride               | mg/L  | 2      | 2          | 100        | 90-110                 | 11/26/2024    |
| Nitrite                | mg/L  | 3      | 3          | 100        | 90-110                 | 11/26/2024    |
| Nitrate                | mg/L  | 2.5    | 2.5        | 100        | 90-110                 | 11/26/2024    |
| Sulfate                | mg/L  | 14.2   | 15         | 95         | 90-110                 | 11/26/2024    |
| Orthophosphate as P    | mg/L  | 5      | 5          | 100        | 90-110                 | 11/26/2024    |
| <b>Sample ID: CCV2</b> |       |        |            |            |                        |               |
| Bromide                | mg/L  | 10     | 10         | 100        | 90-110                 | 11/26/2024    |
| Chloride               | mg/L  | 2.9    | 3          | 97         | 90-110                 | 11/26/2024    |
| Fluoride               | mg/L  | 1.9    | 2          | 95         | 90-110                 | 11/26/2024    |
| Nitrite                | mg/L  | 3      | 3          | 100        | 90-110                 | 11/26/2024    |
| Nitrate                | mg/L  | 2.5    | 2.5        | 100        | 90-110                 | 11/26/2024    |
| Sulfate                | mg/L  | 14.1   | 15         | 94         | 90-110                 | 11/26/2024    |
| Orthophosphate as P    | mg/L  | 4.9    | 5          | 98         | 90-110                 | 11/26/2024    |

## Initial and Continuing Calibration Verification

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**RunNo.:** LB133647

| Analyte    |      | Units | Result | True Value | %<br>Recovery | Acceptance<br>Window (%R) | Analysis<br>Date |
|------------|------|-------|--------|------------|---------------|---------------------------|------------------|
| Sample ID: | ICV  |       |        |            |               |                           |                  |
| pH         |      | pH    | 7.01   | 7          | 100           | 90-110                    | 11/26/2024       |
| Sample ID: | CCV1 |       |        |            |               |                           |                  |
| pH         |      | pH    | 2.01   | 2.00       | 101           | 90-110                    | 11/26/2024       |
| Sample ID: | CCV2 |       |        |            |               |                           |                  |
| pH         |      | pH    | 12.02  | 12.00      | 100           | 90-110                    | 11/26/2024       |

## Initial and Continuing Calibration Verification

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**RunNo.:** LB133649

| Analyte     |     | Units | Result | True Value | %<br>Recovery | Acceptance<br>Window (%R) | Analysis<br>Date |
|-------------|-----|-------|--------|------------|---------------|---------------------------|------------------|
| Sample ID:  | ICV |       |        |            |               |                           |                  |
| Flash Point |     | o F   | 81.7   | 81         | 101           | 78-84                     | 12/02/2024       |

### Initial and Continuing Calibration Verification

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**RunNo.:** LB133703

| Analyte    |      | Units | Result | True Value | % Recovery | Acceptance Window (%R) | Analysis Date |
|------------|------|-------|--------|------------|------------|------------------------|---------------|
| Sample ID: | ICV1 |       |        |            |            |                        |               |
| TKN        |      | mg/L  | 4.7    | 5          | 94         | 90-110                 | 12/03/2024    |
| Sample ID: | CCV1 |       |        |            |            |                        |               |
| TKN        |      | mg/L  | 5      | 5          | 100        | 90-110                 | 12/03/2024    |
| Sample ID: | CCV2 |       |        |            |            |                        |               |
| TKN        |      | mg/L  | 4.9    | 5          | 98         | 90-110                 | 12/03/2024    |



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,  
Fax : 908 789 8922

### Initial and Continuing Calibration Blank Summary

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**RunNo.:** LB133640

| Analyte                                       | Units | Result   | Acceptance<br>Limits | Conc<br>Qual | MDL    | RDL  | Analysis<br>Date |
|-----------------------------------------------|-------|----------|----------------------|--------------|--------|------|------------------|
| Sample ID: <b>ICB</b><br>Hexavalent Chromium  | mg/L  | < 0.0050 | 0.0050               | U            | 0.0027 | 0.01 | 11/26/2024       |
| Sample ID: <b>CCB1</b><br>Hexavalent Chromium | mg/L  | < 0.0050 | 0.0050               | U            | 0.0027 | 0.01 | 11/26/2024       |
| Sample ID: <b>CCB2</b><br>Hexavalent Chromium | mg/L  | < 0.0050 | 0.0050               | U            | 0.0027 | 0.01 | 11/26/2024       |

## Initial and Continuing Calibration Blank Summary

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**RunNo.:** LB133643

| Analyte                | Units | Result   | Acceptance Limits | Conc Qual | MDL    | RDL | Analysis Date |
|------------------------|-------|----------|-------------------|-----------|--------|-----|---------------|
| <b>Sample ID: ICB1</b> |       |          |                   |           |        |     |               |
| Bromide                | mg/L  | < 1.0000 | 1.0000            | U         | 0.034  | 2   | 11/18/2024    |
| Chloride               | mg/L  | < 0.3000 | 0.3000            | U         | 0.011  | 0.6 | 11/18/2024    |
| Fluoride               | mg/L  | < 0.2000 | 0.2000            | U         | 0.057  | 0.4 | 11/18/2024    |
| Nitrite                | mg/L  | < 0.3000 | 0.3000            | U         | 0.011  | 0.6 | 11/18/2024    |
| Nitrate                | mg/L  | < 0.2500 | 0.2500            | U         | 0.0034 | 0.5 | 11/18/2024    |
| Sulfate                | mg/L  | < 1.5000 | 1.5000            | U         | 0.032  | 3   | 11/18/2024    |
| Orthophosphate as P    | mg/L  | < 0.5000 | 0.5000            | U         | 0.079  | 1   | 11/18/2024    |
| <b>Sample ID: CCB1</b> |       |          |                   |           |        |     |               |
| Bromide                | mg/L  | < 1.0000 | 1.0000            | U         | 0.034  | 2   | 11/26/2024    |
| Chloride               | mg/L  | < 0.3000 | 0.3000            | U         | 0.011  | 0.6 | 11/26/2024    |
| Fluoride               | mg/L  | < 0.2000 | 0.2000            | U         | 0.057  | 0.4 | 11/26/2024    |
| Nitrite                | mg/L  | < 0.3000 | 0.3000            | U         | 0.011  | 0.6 | 11/26/2024    |
| Nitrate                | mg/L  | < 0.2500 | 0.2500            | U         | 0.0034 | 0.5 | 11/26/2024    |
| Sulfate                | mg/L  | < 1.5000 | 1.5000            | U         | 0.032  | 3   | 11/26/2024    |
| Orthophosphate as P    | mg/L  | < 0.5000 | 0.5000            | U         | 0.079  | 1   | 11/26/2024    |
| <b>Sample ID: CCB2</b> |       |          |                   |           |        |     |               |
| Bromide                | mg/L  | < 1.0000 | 1.0000            | U         | 0.034  | 2   | 11/26/2024    |
| Chloride               | mg/L  | < 0.3000 | 0.3000            | U         | 0.011  | 0.6 | 11/26/2024    |
| Fluoride               | mg/L  | < 0.2000 | 0.2000            | U         | 0.057  | 0.4 | 11/26/2024    |
| Nitrite                | mg/L  | < 0.3000 | 0.3000            | U         | 0.011  | 0.6 | 11/26/2024    |
| Nitrate                | mg/L  | < 0.2500 | 0.2500            | U         | 0.0034 | 0.5 | 11/26/2024    |
| Sulfate                | mg/L  | < 1.5000 | 1.5000            | U         | 0.032  | 3   | 11/26/2024    |
| Orthophosphate as P    | mg/L  | < 0.5000 | 0.5000            | U         | 0.079  | 1   | 11/26/2024    |

### Initial and Continuing Calibration Blank Summary

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**RunNo.:** LB133703

| Analyte                       | Units | Result   | Acceptance Limits | Conc Qual | MDL  | RDL | Analysis Date |
|-------------------------------|-------|----------|-------------------|-----------|------|-----|---------------|
| Sample ID: <b>ICB1</b><br>TKN | mg/L  | < 0.2500 | 0.2500            | U         | 0.18 | 0.5 | 12/03/2024    |
| Sample ID: <b>CCB1</b><br>TKN | mg/L  | < 0.2500 | 0.2500            | U         | 0.18 | 0.5 | 12/03/2024    |
| Sample ID: <b>CCB2</b><br>TKN | mg/L  | < 0.2500 | 0.2500            | U         | 0.18 | 0.5 | 12/03/2024    |

## Preparation Blank Summary

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

| Analyte                       | Units | Result   | Acceptance Limits | Conc Qual | MDL    | RDL  | Analysis Date |
|-------------------------------|-------|----------|-------------------|-----------|--------|------|---------------|
| Sample ID: <b>lb133640BL</b>  |       |          |                   |           |        |      |               |
| Hexavalent Chromium           | mg/L  | < 0.0050 | 0.0050            | U         | 0.003  | 0.01 | 11/26/2024    |
| Sample ID: <b>LB133643BLW</b> |       |          |                   |           |        |      |               |
| Bromide                       | mg/L  | < 1.0000 | 1.0000            | U         | 0.034  | 2    | 11/26/2024    |
| Chloride                      | mg/L  | < 0.3000 | 0.3000            | U         | 0.011  | 0.6  | 11/26/2024    |
| Fluoride                      | mg/L  | < 0.2000 | 0.2000            | U         | 0.057  | 0.4  | 11/26/2024    |
| Nitrite                       | mg/L  | < 0.3000 | 0.3000            | U         | 0.011  | 0.6  | 11/26/2024    |
| Nitrate                       | mg/L  | < 0.2500 | 0.2500            | U         | 0.0034 | 0.5  | 11/26/2024    |
| Sulfate                       | mg/L  | < 1.5000 | 1.5000            | U         | 0.032  | 3    | 11/26/2024    |
| Orthophosphate as P           | mg/L  | < 0.5000 | 0.5000            | U         | 0.079  | 1    | 11/26/2024    |
| Sample ID: <b>LB133654BL</b>  |       |          |                   |           |        |      |               |
| TS                            | mg/L  | < 2.5000 | 2.5000            | U         | 1      | 5    | 11/26/2024    |
| Sample ID: <b>LB133658BL</b>  |       |          |                   |           |        |      |               |
| TSS                           | mg/L  | < 2.0000 | 2.0000            | U         | 1      | 4    | 11/27/2024    |
| Sample ID: <b>LB133668BL</b>  |       |          |                   |           |        |      |               |
| BOD5                          | mg/L  | < 0.2000 | 0.2000            | U         | 0.17   | 2.0  | 11/27/2024    |
| Sample ID: <b>PB165319BL</b>  |       |          |                   |           |        |      |               |
| TKN                           | mg/L  | < 0.2500 | 0.2500            | U         | 0.18   | 0.5  | 12/03/2024    |

## Matrix Spike Summary

|                   |                                     |                                         |          |
|-------------------|-------------------------------------|-----------------------------------------|----------|
| <b>Client:</b>    | ENTACT                              | <b>SDG No.:</b>                         | P5006    |
| <b>Project:</b>   | 540 Degraw St, Brooklyn, NY - E9309 | <b>Sample ID:</b>                       | P5006-18 |
| <b>Client ID:</b> | TW-WTS-02MS                         | <b>Percent Solids for Spike Sample:</b> | 0        |

| Analyte             | Units | Acceptance<br>Limit %R | Spiked<br>Result | Conc.<br>Qualifier | Sample<br>Result | Conc.<br>Qualifier | Spike<br>Added | Dilution<br>Factor | %<br>Rec | Qual | Analysis<br>Date |
|---------------------|-------|------------------------|------------------|--------------------|------------------|--------------------|----------------|--------------------|----------|------|------------------|
| Bromide             | mg/L  | 80-120                 | 7.50             |                    | 1.50             | J                  | 10             | 1                  | 60       | *    | 11/26/2024       |
| Chloride            | mg/L  | 80-120                 | 255              | OR                 | 261              | OR                 | 3              | 1                  | -200     | *    | 11/26/2024       |
| Fluoride            | mg/L  | 80-120                 | 0.67             |                    | 1.90             |                    | 2              | 1                  | -62      | *    | 11/26/2024       |
| Nitrite             | mg/L  | 80-120                 | 1.80             |                    | 0.011            | U                  | 3              | 1                  | 60       | *    | 11/26/2024       |
| Nitrate             | mg/L  | 80-120                 | 11.1             | OR                 | 9.80             | OR                 | 2.5            | 1                  | 52       | *    | 11/26/2024       |
| Sulfate             | mg/L  | 80-120                 | 232              | OR                 | 229              | OR                 | 15             | 1                  | 20       | *    | 11/26/2024       |
| Orthophosphate as P | mg/L  | 80-120                 | 0.78             | J                  | 0.079            | U                  | 5              | 1                  | 16       | *    | 11/26/2024       |

## Matrix Spike Summary

|                   |                                     |                                         |          |
|-------------------|-------------------------------------|-----------------------------------------|----------|
| <b>Client:</b>    | ENTACT                              | <b>SDG No.:</b>                         | P5006    |
| <b>Project:</b>   | 540 Degraw St, Brooklyn, NY - E9309 | <b>Sample ID:</b>                       | P5006-18 |
| <b>Client ID:</b> | TW-WTS-02MSD                        | <b>Percent Solids for Spike Sample:</b> | 0        |

| Analyte             | Units | Acceptance<br>Limit %R | Spiked<br>Result | Conc.<br>Qualifier | Sample<br>Result | Conc.<br>Qualifier | Spike<br>Added | Dilution<br>Factor | %<br>Rec | Qual | Analysis<br>Date |
|---------------------|-------|------------------------|------------------|--------------------|------------------|--------------------|----------------|--------------------|----------|------|------------------|
| Bromide             | mg/L  | 80-120                 | 7.50             |                    | 1.50             | J                  | 10             | 1                  | 60       | *    | 11/26/2024       |
| Chloride            | mg/L  | 80-120                 | 254              | OR                 | 261              | OR                 | 3              | 1                  | -233     | *    | 11/26/2024       |
| Fluoride            | mg/L  | 80-120                 | 3.10             |                    | 1.90             |                    | 2              | 1                  | 60       | *    | 11/26/2024       |
| Nitrite             | mg/L  | 80-120                 | 1.80             |                    | 0.011            | U                  | 3              | 1                  | 60       | *    | 11/26/2024       |
| Nitrate             | mg/L  | 80-120                 | 11.1             | OR                 | 9.80             | OR                 | 2.5            | 1                  | 52       | *    | 11/26/2024       |
| Sulfate             | mg/L  | 80-120                 | 232              | OR                 | 229              | OR                 | 15             | 1                  | 20       | *    | 11/26/2024       |
| Orthophosphate as P | mg/L  | 80-120                 | 3.10             |                    | 0.079            | U                  | 5              | 1                  | 62       | *    | 11/26/2024       |

### Duplicate Sample Summary

|                   |                                     |                                         |          |
|-------------------|-------------------------------------|-----------------------------------------|----------|
| <b>Client:</b>    | ENTACT                              | <b>SDG No.:</b>                         | P5006    |
| <b>Project:</b>   | 540 Degraw St, Brooklyn, NY - E9309 | <b>Sample ID:</b>                       | P5006-18 |
| <b>Client ID:</b> | TW-WTS-02DUP                        | <b>Percent Solids for Spike Sample:</b> | 0        |

| Analyte     | Units | Acceptance<br>Limit | Sample<br>Result | Conc.<br>Qualifier | Duplicate<br>Result | Conc.<br>Qualifier | Dilution<br>Factor | RPD/<br>AD | Qual | Analysis<br>Date |
|-------------|-------|---------------------|------------------|--------------------|---------------------|--------------------|--------------------|------------|------|------------------|
| pH          | pH    | +/-20               | 6.10             |                    | 6.11                |                    | 1                  | 0.16       |      | 11/26/2024       |
| Flash Point | o F   | +/-2                | >212.0           |                    | >212.0              |                    | 1                  | 0          |      | 12/02/2024       |

## Duplicate Sample Summary

|                   |                                     |                                         |          |
|-------------------|-------------------------------------|-----------------------------------------|----------|
| <b>Client:</b>    | ENTACT                              | <b>SDG No.:</b>                         | P5006    |
| <b>Project:</b>   | 540 Degraw St, Brooklyn, NY - E9309 | <b>Sample ID:</b>                       | P5006-18 |
| <b>Client ID:</b> | TW-WTS-02MSD                        | <b>Percent Solids for Spike Sample:</b> | 0        |

| Analyte             | Units | Acceptance Limit | Sample Result | Conc. Qualifier | Duplicate Result | Conc. Qualifier | Dilution Factor | RPD/AD | Qual | Analysis Date |
|---------------------|-------|------------------|---------------|-----------------|------------------|-----------------|-----------------|--------|------|---------------|
| Bromide             | mg/L  | +/-20            | 7.50          |                 | 7.50             |                 | 1               | 0      |      | 11/26/2024    |
| Nitrite             | mg/L  | +/-20            | 1.80          |                 | 1.80             |                 | 1               | 0      |      | 11/26/2024    |
| Chloride            | mg/L  | +/-20            | 255           | OR              | 254              | OR              | 1               | 0      |      | 11/26/2024    |
| Nitrate             | mg/L  | +/-20            | 11.1          | OR              | 11.1             | OR              | 1               | 0      |      | 11/26/2024    |
| Sulfate             | mg/L  | +/-20            | 232           | OR              | 232              | OR              | 1               | 0      |      | 11/26/2024    |
| Orthophosphate as P | mg/L  | +/-20            | 0.78          | J               | 3.10             |                 | 1               | 120    | *    | 11/26/2024    |
| Fluoride            | mg/L  | +/-20            | 0.67          |                 | 3.10             |                 | 1               | 129    | *    | 11/26/2024    |

## Duplicate Sample Summary

|                                                                                                            |                                                                                                  |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Client:</b> ENTACT<br><b>Project:</b> 540 Degraw St, Brooklyn, NY - E9309<br><b>Client ID:</b> 14B-4DUP | <b>SDG No.:</b> P5006<br><b>Sample ID:</b> P5018-04<br><b>Percent Solids for Spike Sample:</b> 0 |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|

| Analyte | Units | Acceptance<br>Limit | Sample<br>Result | Conc.<br>Qualifier | Duplicate<br>Result | Conc.<br>Qualifier | Dilution<br>Factor | RPD/<br>AD | Qual | Analysis<br>Date |
|---------|-------|---------------------|------------------|--------------------|---------------------|--------------------|--------------------|------------|------|------------------|
| TSS     | mg/L  | +/-5                | 5270             |                    | 5070                |                    | 1                  | 3.87       |      | 11/27/2024       |

### Laboratory Control Sample Summary

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**Run No.:** LB133640

| Analyte             | Units      | True Value | Result | Conc. Qualifier | % Recovery | Dilution Factor | Acceptance Limit %R | Analysis Date |
|---------------------|------------|------------|--------|-----------------|------------|-----------------|---------------------|---------------|
| Sample ID           | lb133640BS |            |        |                 |            |                 |                     |               |
| Hexavalent Chromium | mg/L       | 0.5        | 0.51   |                 | 102        | 1               | 90-111              | 11/26/2024    |

### Laboratory Control Sample Summary

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**Run No.:** LB133643

| Analyte             | Units       | True Value | Result | Conc. Qualifier | % Recovery | Dilution Factor | Acceptance Limit %R | Analysis Date |
|---------------------|-------------|------------|--------|-----------------|------------|-----------------|---------------------|---------------|
| Sample ID           | LB133643BSW |            |        |                 |            |                 |                     |               |
| Bromide             | mg/L        | 10         | 10.0   |                 | 100        | 1               | 90-110              | 11/26/2024    |
| Chloride            | mg/L        | 3          | 2.90   |                 | 97         | 1               | 90-110              | 11/26/2024    |
| Fluoride            | mg/L        | 2          | 2.00   |                 | 100        | 1               | 90-110              | 11/26/2024    |
| Nitrite             | mg/L        | 3          | 3.00   |                 | 100        | 1               | 90-110              | 11/26/2024    |
| Nitrate             | mg/L        | 2.5        | 2.50   |                 | 100        | 1               | 90-110              | 11/26/2024    |
| Sulfate             | mg/L        | 15         | 14.2   |                 | 95         | 1               | 90-110              | 11/26/2024    |
| Orthophosphate as P | mg/L        | 5          | 5.10   |                 | 102        | 1               | 90-110              | 11/26/2024    |

### Laboratory Control Sample Summary

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**Run No.:** LB133658

| Analyte   | Units      | True Value | Result | Conc. Qualifier | % Recovery | Dilution Factor | Acceptance Limit %R | Analysis Date |
|-----------|------------|------------|--------|-----------------|------------|-----------------|---------------------|---------------|
| Sample ID | LB133658BS |            |        |                 |            |                 |                     |               |
| TSS       | mg/L       | 550        | 536    |                 | 98         | 1               | 90-110              | 11/27/2024    |

### Laboratory Control Sample Summary

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**Run No.:** LB133668

| Analyte   | Units      | True Value | Result | Conc. Qualifier | % Recovery | Dilution Factor | Acceptance Limit %R | Analysis Date |
|-----------|------------|------------|--------|-----------------|------------|-----------------|---------------------|---------------|
| Sample ID | LB133668BS |            |        |                 |            |                 |                     |               |
| BOD5      | mg/L       | 198        | 194    |                 | 98         | 1               | 84.6-115.4          | 11/27/2024    |

### Laboratory Control Sample Summary

**Client:** ENTACT

**SDG No.:** P5006

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**Run No.:** LB133703

| Analyte   | Units      | True Value | Result | Conc. Qualifier | % Recovery | Dilution Factor | Acceptance Limit %R | Analysis Date |
|-----------|------------|------------|--------|-----------------|------------|-----------------|---------------------|---------------|
| Sample ID | PB165319BS |            |        |                 |            |                 |                     |               |
| TKN       | mg/L       | 5          | 4.60   |                 | 92         | 1               | 90-110              | 12/03/2024    |



# RAW DATA

Analysis Method: 7196A

ANALYST: rubina

Parameter: ~~Hexavalent Chromium~~

SUPERVISOR REVIEW BY: Iwona

Run Number: LB133640

pH Meter ID: WC pH Meter-1

| Reagent/Standard                         | Lot/Log # |
|------------------------------------------|-----------|
| Calibration Std. hexchrome 0.1 ppm       | WP110886  |
| Calibration Std. hexchrome 0.05 ppm      | WP110885  |
| calibration std. hexchrome 0.01 ppm      | WP110883  |
| calibration std. hexchrome 0 ppm         | WP110882  |
| hexavalent chromium color reagent        | WP110866  |
| 5N sulfuric acid                         | WP110380  |
| Calibration Std Hexachrome 0.025 ppm     | WP110884  |
| Hexavalent Chromium ICV-LCS Std          | WP110889  |
| Calibration and CCV std HexChrome 0.5PPM | WP110887  |
| Calibration std HexChrome 1.0PPM         | WP110888  |

Intercept: 0.0003

Slope: 0.7846

Regression: 0.99999

| Seq | Lab ID | True Value (mg/l) | DF | Initial Vol (ml) | Final Vol (ml) | pH HN03 | pH H2SO4 | Absorb.at 540nm |       | Absorbance Difference | Result (mg/L) | %D   | Anal Date  | Anal Time |
|-----|--------|-------------------|----|------------------|----------------|---------|----------|-----------------|-------|-----------------------|---------------|------|------------|-----------|
|     |        |                   |    |                  |                |         |          | Backgrnd        | Color |                       |               |      |            |           |
| 1   | CAL1   | 0                 | 1  | 100              | 100            |         | 1.79     | 0.000           | 0.000 | 0.000                 | -0.00         |      | 11/26/2024 | 16:20     |
| 2   | CAL2   | 0.01              | 1  | 100              | 100            |         | 1.90     | 0.000           | 0.007 | 0.007                 | 0.008         | -20  | 11/26/2024 | 16:21     |
| 3   | CAL3   | 0.025             | 1  | 100              | 100            |         | 1.85     | 0.000           | 0.019 | 0.019                 | 0.023         | -8   | 11/26/2024 | 16:22     |
| 4   | CAL4   | 0.05              | 1  | 100              | 100            |         | 1.88     | 0.000           | 0.039 | 0.039                 | 0.049         | -2   | 11/26/2024 | 16:23     |
| 5   | CAL5   | 0.1               | 1  | 100              | 100            |         | 1.86     | 0.000           | 0.081 | 0.081                 | 0.102         | 2    | 11/26/2024 | 16:24     |
| 6   | CAL6   | 0.5               | 1  | 100              | 100            |         | 1.88     | 0.000           | 0.394 | 0.394                 | 0.501         | 0.2  | 11/26/2024 | 16:25     |
| 7   | CAL7   | 1                 | 1  | 100              | 100            |         | 1.89     | 0.000           | 0.784 | 0.784                 | 0.998         | -0.2 | 11/26/2024 | 16:26     |

## Analytical Summary Report

Analysis Method: 7196A

ANALYST:rubina

Parameter: Hexavalent Chromium

SUPERVISOR REVIEW BY:Iwona

Run Number: LB133640

pH Meter ID:WC pH Meter-1

| Seq | Lab ID     | True Value | DF | Initial Vol (ml/gm) | Final Vol (ml) | pH HN03 | pH H2SO4 | Absorb.at540nm |       | Absorbance Difference | Intermediate Result (mg/L) | Anal Date  | Anal Time |
|-----|------------|------------|----|---------------------|----------------|---------|----------|----------------|-------|-----------------------|----------------------------|------------|-----------|
|     |            |            |    |                     |                |         |          | Backgrnd       | Color |                       |                            |            |           |
| 1   | ICV        | 0.5        | 1  | 100                 | 100            |         | 1.93     | 0.000          | 0.392 | 0.392                 | 0.499                      | 11/26/2024 | 16:27     |
| 2   | ICB        |            | 1  | 100                 | 100            |         | 1.75     | 0.000          | 0.001 | 0.001                 | 0.001                      | 11/26/2024 | 16:28     |
| 3   | CCV1       | 0.5        | 1  | 100                 | 100            |         | 1.94     | 0.000          | 0.394 | 0.394                 | 0.502                      | 11/26/2024 | 16:29     |
| 4   | CCB1       |            | 1  | 100                 | 100            |         | 1.80     | 0.000          | 0.000 | 0.000                 | 0.000                      | 11/26/2024 | 16:30     |
| 5   | RL Check   | 0.01       | 1  | 100                 | 100            |         | 1.91     | 0.000          | 0.008 | 0.008                 | 0.010                      | 11/26/2024 | 16:31     |
| 6   | lb133640BL |            | 1  | 100                 | 100            |         | 1.79     | 0.000          | 0.001 | 0.001                 | 0.001                      | 11/26/2024 | 16:32     |
| 7   | lb133640BS | 0.5        | 1  | 100                 | 100            |         | 1.93     | 0.000          | 0.400 | 0.400                 | 0.509                      | 11/26/2024 | 16:33     |
| 8   | P5006-18   |            | 1  | 100                 | 100            |         | 2.06     | 0.000          | 0.000 | 0.000                 | 0.000                      | 11/26/2024 | 16:34     |
| 9   | CCV2       | 0.5        | 1  | 100                 | 100            |         | 1.92     | 0.000          | 0.380 | 0.380                 | 0.484                      | 11/26/2024 | 16:35     |
| 10  | CCB2       |            | 1  | 100                 | 100            |         | 1.77     | 0.000          | 0.001 | 0.001                 | 0.001                      | 11/26/2024 | 16:36     |

| Instrument ID  |        | IC-1    | Analyst : |         | NF      | Method: :00.0 / 9056A |         |             |                  |           |         |
|----------------|--------|---------|-----------|---------|---------|-----------------------|---------|-------------|------------------|-----------|---------|
| Ident          | Con F- | Con CL- | Con NO2   | Con BR- | Con NO3 | Con HPO4              | Con SO4 | Method name | date time        | il wt/Fin | Analyst |
| STD1           | 0      | 0       | 0         | 0       | 0       | 0                     | 0       | IC1-111824  | 11/18/2024 11:24 | 10        | NF/IZ   |
| STD2           | 0.402  | 0.571   | 0.601     | 1.961   | 0.489   | 1.025                 | 3.062   | IC1-111824  | 11/18/2024 11:46 | 10        | NF/IZ   |
| STD3           | 0.794  | 1.185   | 1.175     | 3.939   | 0.997   | 1.928                 | 6.062   | IC1-111824  | 11/18/2024 12:07 | 10        | NF/IZ   |
| STD4           | 1.023  | 1.554   | 1.535     | 5.128   | 1.284   | 2.665                 | 7.843   | IC1-111824  | 11/18/2024 12:29 | 10        | NF/IZ   |
| STD5           | 1.997  | 3.009   | 2.993     | 9.997   | 2.488   | 4.96                  | 14.679  | IC1-111824  | 11/18/2024 12:50 | 10        | NF/IZ   |
| STD6           | 3.936  | 5.952   | 5.978     | 19.928  | 4.964   | 9.645                 | 28.993  | IC1-111824  | 11/18/2024 13:11 | 10        | NF/IZ   |
| STD7           | 5.049  | 7.529   | 7.517     | 25.045  | 6.279   | 12.776                | 37.863  | IC1-111824  | 11/18/2024 13:33 | 10        | NF/IZ   |
| ICV            | 1.966  | 3.006   | 2.997     | 9.98    | 2.49    | 4.979                 | 14.594  | IC1-111824  | 11/18/2024 13:54 | 10        | NF/IZ   |
| ICB            | 0      | 0       | 0         | 0       | 0       | 0                     | 0       | IC1-111824  | 11/18/2024 14:16 | 10        | NF/IZ   |
| CCV            | 1.954  | 2.937   | 2.979     | 9.972   | 2.464   | 5.013                 | 14.17   | IC1-111824  | 11/26/2024 12:56 | 10        | NF/IZ   |
| CCB            | 0      | 0       | 0         | 0       | 0       | 0                     | 0       | IC1-111824  | 11/26/2024 13:17 | 10        | NF/IZ   |
| LB133643BLW    | 0      | 0       | 0         | 0       | 0       | 0                     | 0       | IC1-111824  | 11/26/2024 13:38 | 10        | NF/IZ   |
| LB133643BSW    | 1.958  | 2.941   | 2.987     | 9.991   | 2.468   | 5.064                 | 14.228  | IC1-111824  | 11/26/2024 14:00 | 10        | NF/IZ   |
| P5006-18       | 1.9    | 261.077 | 0         | 1.458   | 9.801   | 0                     | 228.529 | IC1-111824  | 11/26/2024 15:02 | 10        | NF/IZ   |
| P5006-18MS     | 0.669  | 254.825 | 1.826     | 7.527   | 11.136  | 0.782                 | 231.697 | IC1-111824  | 11/26/2024 15:23 | 10        | NF/IZ   |
| P5006-18MSD    | 3.113  | 253.702 | 1.824     | 7.496   | 11.147  | 3.05                  | 232.083 | IC1-111824  | 11/26/2024 15:45 | 10        | NF/IZ   |
| P5006-18DLX2   | 0.924  | 115.293 | 0         | 0.131   | 4.701   | 0                     | 103.441 | IC1-111824  | 11/26/2024 16:07 | 10        | NF/IZ   |
| P5006-18DL2X50 | 0.05   | 3.633   | 0         | 0       | 0.181   | 0                     | 3.896   | IC1-111824  | 11/26/2024 16:28 | 10        | NF/IZ   |
| CCV            | 1.948  | 2.942   | 2.99      | 9.951   | 2.465   | 4.948                 | 14.106  | IC1-111824  | 11/26/2024 16:50 | 10        | NF/IZ   |
| CCB            | 0      | 0       | 0         | 0       | 0       | 0                     | 0       | IC1-111824  | 11/26/2024 17:11 | 10        | NF/IZ   |

Clear table

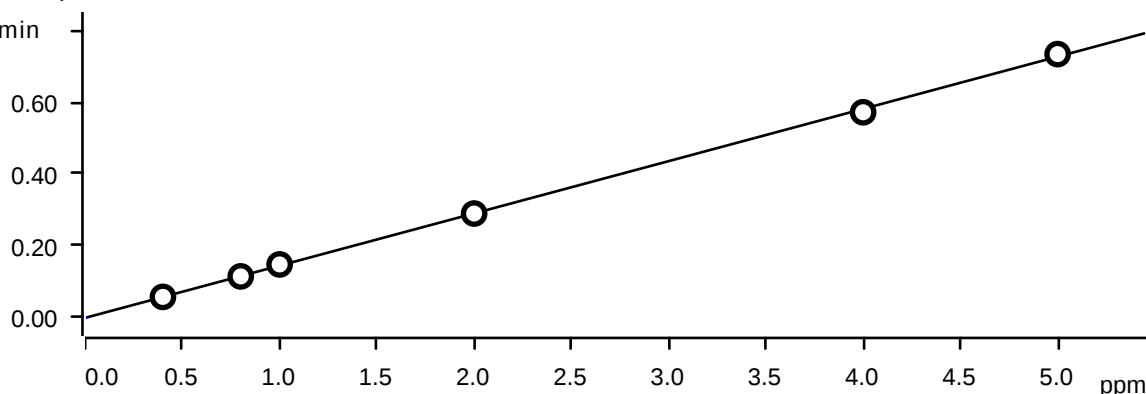
| Instrument ID: IC-2 |                      |                       |                       |                       |                       |                        |                       |               |                           |
|---------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|---------------|---------------------------|
| Analyst :           |                      |                       |                       | IZ                    |                       | Method:                |                       | 300.0 / 9056A |                           |
| ident               | concentra<br>tion F- | concentratio<br>n CL- | concentrati<br>on NO2 | concentrati<br>on BR- | concentrati<br>on NO3 | concentrati<br>on HPO4 | concentrati<br>on SO4 | file name     | Initial<br>wt/<br>Analyst |
| STD1                | 0.000                | 0.000                 | 0.000                 | 0.000                 | 0.000                 | 0.000                  | 0.000                 | IC1-111824    | Final                     |
| STD2                | 0.402                | 0.571                 | 0.601                 | 1.961                 | 0.489                 | 1.025                  | 3.062                 | IC1-111824    | 10 NF/IZ                  |
| STD3                | 0.794                | 1.185                 | 1.175                 | 3.939                 | 0.997                 | 1.928                  | 6.062                 | IC1-111824    | 10 NF/IZ                  |
| STD4                | 1.023                | 1.554                 | 1.535                 | 5.128                 | 1.284                 | 2.665                  | 7.843                 | IC1-111824    | 10 NF/IZ                  |
| STD5                | 1.997                | 3.009                 | 2.993                 | 9.997                 | 2.488                 | 4.960                  | 14.679                | IC1-111824    | 10 NF/IZ                  |
| STD6                | 3.936                | 5.952                 | 5.978                 | 19.928                | 4.964                 | 9.645                  | 28.993                | IC1-111824    | 10 NF/IZ                  |
| STD7                | 5.049                | 7.529                 | 7.517                 | 25.045                | 6.279                 | 12.776                 | 37.863                | IC1-111824    | 10 NF/IZ                  |
|                     |                      |                       |                       |                       |                       |                        |                       |               |                           |
| ident               | True<br>Value F-     | True Value<br>CL-     | True Value<br>NO2     | True Value<br>BR-     | True Value<br>NO3     | True Value<br>HPO4     | True Value<br>SO4     |               |                           |
| STD1                | 0.0000               | 0.0000                | 0.0000                | 0.0000                | 0.0000                | 0.0000                 | 0.0000                |               |                           |
| STD2                | 0.4000               | 0.6000                | 0.6000                | 2.0000                | 0.5000                | 1.0000                 | 3.0000                |               |                           |
| STD3                | 0.8000               | 1.2000                | 1.2000                | 4.0000                | 1.0000                | 2.0000                 | 6.0000                |               |                           |
| STD4                | 1.0000               | 1.5000                | 1.5000                | 5.0000                | 1.2500                | 2.5000                 | 7.5000                |               |                           |
| STD5                | 2.0000               | 3.0000                | 3.0000                | 10.0000               | 2.5000                | 5.0000                 | 15.0000               |               |                           |
| STD6                | 4.0000               | 6.0000                | 6.0000                | 20.0000               | 5.0000                | 10.0000                | 30.0000               |               |                           |
| STD7                | 5.0000               | 7.5000                | 7.5000                | 25.0000               | 6.2500                | 12.5000                | 37.0000               |               |                           |
|                     |                      |                       |                       |                       |                       |                        |                       |               |                           |
| ident               | Relative<br>Error F- | Relative<br>Error CL- | Relative<br>Error NO2 | Relative<br>Error BR- | Relative<br>Error NO3 | Relative<br>Error HPO4 | Relative<br>Error SO4 |               |                           |
| STD1                |                      |                       |                       |                       |                       |                        |                       |               |                           |
| STD2                | 0.5000               | -4.8333               | 0.1667                | -1.9500               | -2.2000               | 2.5000                 | 2.0667                |               |                           |
| STD3                | -0.7500              | -1.2500               | -2.0833               | -1.5250               | -0.3000               | -3.6000                | 1.0333                |               |                           |
| STD4                | 2.3000               | 3.6000                | 2.3333                | 2.5600                | 2.7200                | 6.6000                 | 4.5733                |               |                           |
| STD5                | -0.1500              | 0.3000                | -0.2333               | -0.0300               | -0.4800               | -0.8000                | -2.1400               |               |                           |
| STD6                | -1.6000              | -0.8000               | -0.3667               | -0.3600               | -0.7200               | -3.5500                | -3.3567               |               |                           |
| STD7                | 0.9800               | 0.3867                | 0.2267                | 0.1800                | 0.4640                | 2.2080                 | 2.3324                |               |                           |

Initial  
wt/  
Final

Analyst

# Fluoride (Anions)

( $\mu\text{S}/\text{cm}$ ) x min



Function: . . . . .  $A = -1.48773E-3 + 0.0145652 \times Q$

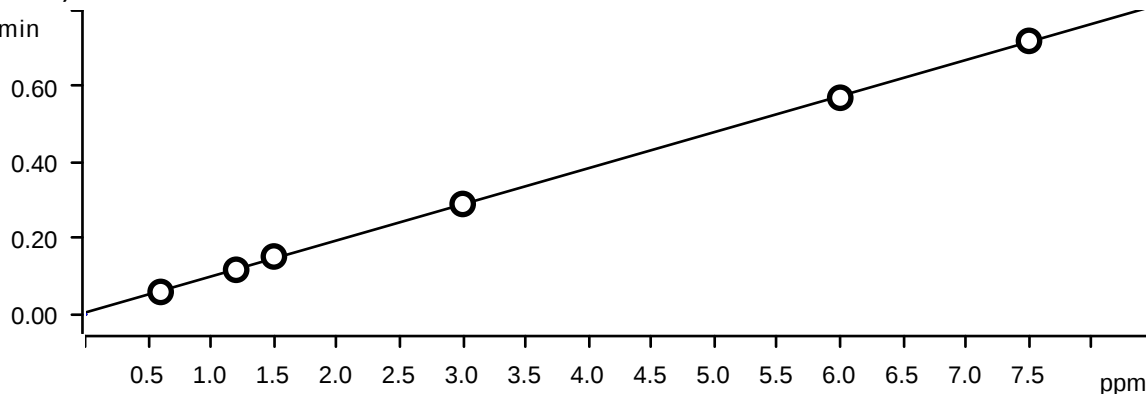
Relative standard deviation . . . . . 1.923523 %

Correlation coefficient . . . . . 0.999800

| Sample type | Index | Conc. | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|-------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000 | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2024-11-18 11:24:52 UTC-5 | used |
| Standard 2  | 1     | 0.400 | 10.0   | 1.0      | 1.0           | 0.057 | STD2  | 2024-11-18 11:46:16 UTC-5 | used |
| Standard 3  | 1     | 0.800 | 10.0   | 1.0      | 1.0           | 0.114 | STD3  | 2024-11-18 12:07:40 UTC-5 | used |
| Standard 4  | 1     | 1.000 | 10.0   | 1.0      | 1.0           | 0.147 | STD4  | 2024-11-18 12:29:05 UTC-5 | used |
| Standard 5  | 1     | 2.000 | 10.0   | 1.0      | 1.0           | 0.289 | STD5  | 2024-11-18 12:50:30 UTC-5 | used |
| Standard 6  | 1     | 4.000 | 10.0   | 1.0      | 1.0           | 0.572 | STD6  | 2024-11-18 13:11:57 UTC-5 | used |
| Standard 7  | 1     | 5.000 | 10.0   | 1.0      | 1.0           | 0.734 | STD7  | 2024-11-18 13:33:24 UTC-5 | used |

# Chloride (Anions)

( $\mu\text{S}/\text{cm}$ ) x min



Function: . . . . .  $A = 4.85841E-3 + 9.50243E-3 \times Q$

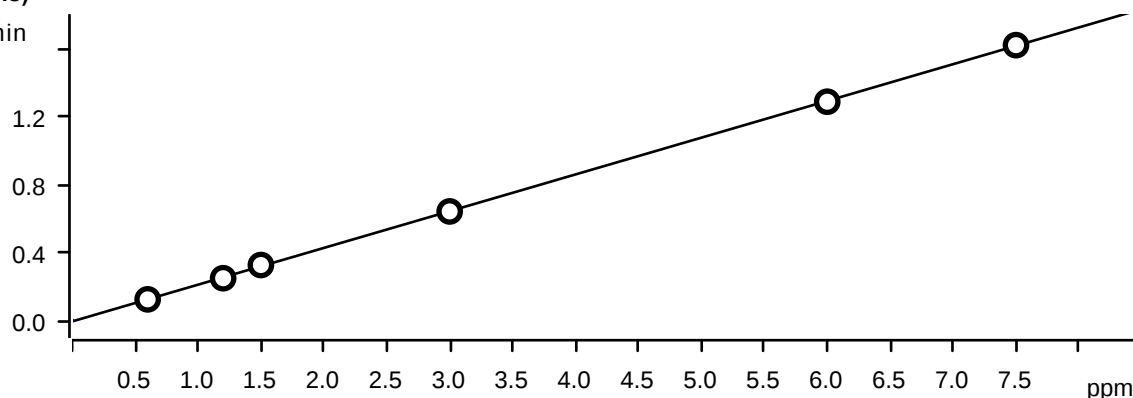
Relative standard deviation . . . . . 1.265280 %

Correlation coefficient . . . . . 0.999910

| Sample type | Index | Conc. | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|-------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000 | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2024-11-18 11:24:52 UTC-5 | used |
| Standard 2  | 1     | 0.600 | 10.0   | 1.0      | 1.0           | 0.059 | STD2  | 2024-11-18 11:46:16 UTC-5 | used |
| Standard 3  | 1     | 1.200 | 10.0   | 1.0      | 1.0           | 0.117 | STD3  | 2024-11-18 12:07:40 UTC-5 | used |
| Standard 4  | 1     | 1.500 | 10.0   | 1.0      | 1.0           | 0.153 | STD4  | 2024-11-18 12:29:05 UTC-5 | used |
| Standard 5  | 1     | 3.000 | 10.0   | 1.0      | 1.0           | 0.291 | STD5  | 2024-11-18 12:50:30 UTC-5 | used |
| Standard 6  | 1     | 6.000 | 10.0   | 1.0      | 1.0           | 0.570 | STD6  | 2024-11-18 13:11:57 UTC-5 | used |
| Standard 7  | 1     | 7.500 | 10.0   | 1.0      | 1.0           | 0.720 | STD7  | 2024-11-18 13:33:24 UTC-5 | used |

**Nitrite (Anions)**

(μS/cm) x min

Function: . . . . .  $A = -5.27414E-3 + 0.0216316 \times Q$ 

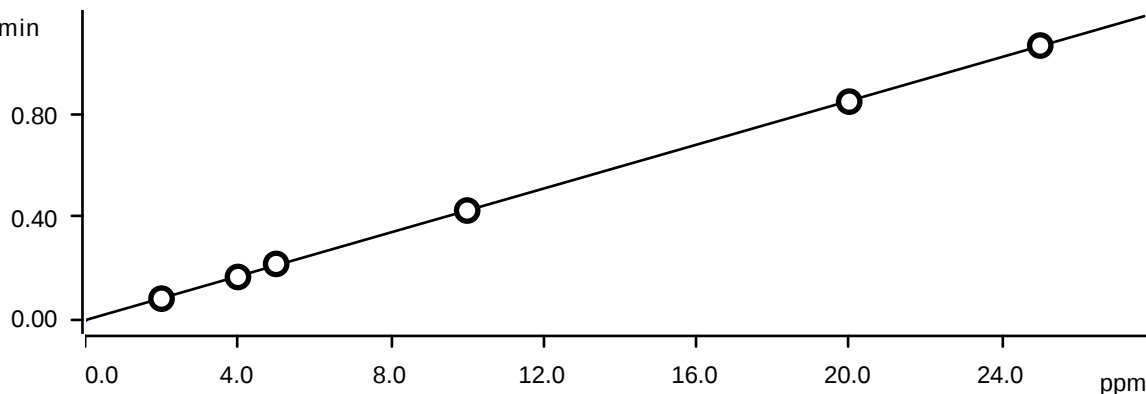
Relative standard deviation . . . . . 0.783603 %

Correlation coefficient . . . . . 0.999967

| Sample type | Index | Conc. | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|-------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000 | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2024-11-18 11:24:52 UTC-5 | used |
| Standard 2  | 1     | 0.600 | 10.0   | 1.0      | 1.0           | 0.125 | STD2  | 2024-11-18 11:46:16 UTC-5 | used |
| Standard 3  | 1     | 1.200 | 10.0   | 1.0      | 1.0           | 0.249 | STD3  | 2024-11-18 12:07:40 UTC-5 | used |
| Standard 4  | 1     | 1.500 | 10.0   | 1.0      | 1.0           | 0.327 | STD4  | 2024-11-18 12:29:05 UTC-5 | used |
| Standard 5  | 1     | 3.000 | 10.0   | 1.0      | 1.0           | 0.642 | STD5  | 2024-11-18 12:50:30 UTC-5 | used |
| Standard 6  | 1     | 6.000 | 10.0   | 1.0      | 1.0           | 1.288 | STD6  | 2024-11-18 13:11:57 UTC-5 | used |
| Standard 7  | 1     | 7.500 | 10.0   | 1.0      | 1.0           | 1.621 | STD7  | 2024-11-18 13:33:24 UTC-5 | used |

# Bromide (Anions)

( $\mu\text{S}/\text{cm}$ )  $\times$  min



Function:  $A = 7.64331E-4 + 4.24604E-3 \times Q$

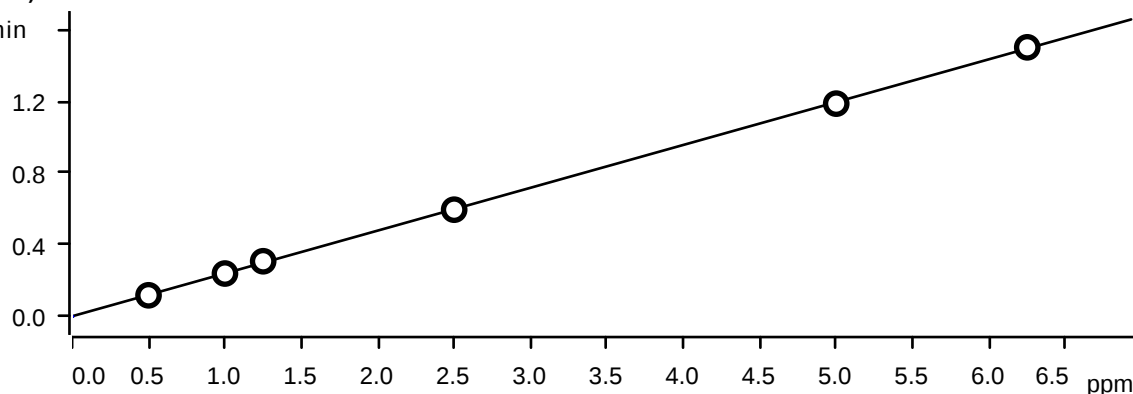
Relative standard deviation: 0.771268 %

Correlation coefficient: 0.999967

| Sample type | Index | Conc.  | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|--------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000  | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2024-11-18 11:24:52 UTC-5 | used |
| Standard 2  | 1     | 2.000  | 10.0   | 1.0      | 1.0           | 0.084 | STD2  | 2024-11-18 11:46:16 UTC-5 | used |
| Standard 3  | 1     | 4.000  | 10.0   | 1.0      | 1.0           | 0.168 | STD3  | 2024-11-18 12:07:40 UTC-5 | used |
| Standard 4  | 1     | 5.000  | 10.0   | 1.0      | 1.0           | 0.219 | STD4  | 2024-11-18 12:29:05 UTC-5 | used |
| Standard 5  | 1     | 10.000 | 10.0   | 1.0      | 1.0           | 0.425 | STD5  | 2024-11-18 12:50:30 UTC-5 | used |
| Standard 6  | 1     | 20.000 | 10.0   | 1.0      | 1.0           | 0.847 | STD6  | 2024-11-18 13:11:57 UTC-5 | used |
| Standard 7  | 1     | 25.000 | 10.0   | 1.0      | 1.0           | 1.064 | STD7  | 2024-11-18 13:33:24 UTC-5 | used |

# Nitrate (Anions)

( $\mu\text{S}/\text{cm}$ )  $\times$  min

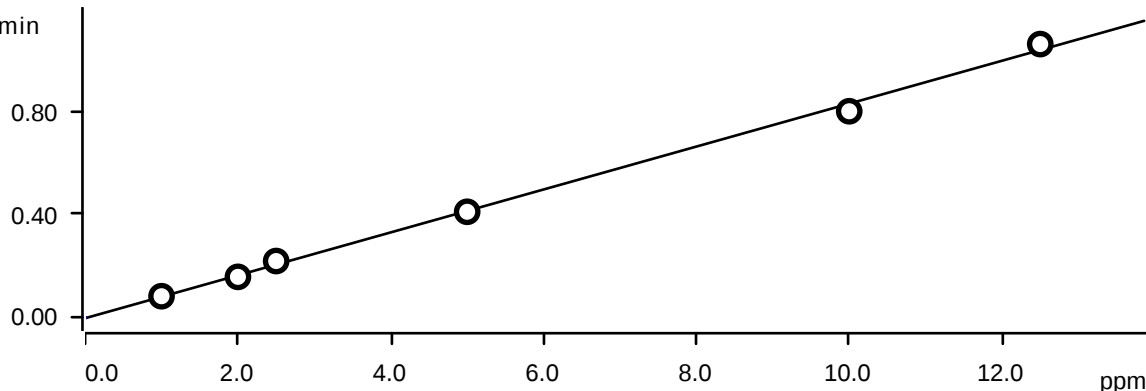


Function:  $A = 1.14484E-3 + 0.0238833 \times Q$

Relative standard deviation: 1.085494 %

Correlation coefficient . . . . . 0.999936

| Sample type | Index | Conc. | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|-------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000 | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2024-11-18 11:24:52 UTC-5 | used |
| Standard 2  | 1     | 0.500 | 10.0   | 1.0      | 1.0           | 0.118 | STD2  | 2024-11-18 11:46:16 UTC-5 | used |
| Standard 3  | 1     | 1.000 | 10.0   | 1.0      | 1.0           | 0.239 | STD3  | 2024-11-18 12:07:40 UTC-5 | used |
| Standard 4  | 1     | 1.250 | 10.0   | 1.0      | 1.0           | 0.308 | STD4  | 2024-11-18 12:29:05 UTC-5 | used |
| Standard 5  | 1     | 2.500 | 10.0   | 1.0      | 1.0           | 0.595 | STD5  | 2024-11-18 12:50:30 UTC-5 | used |
| Standard 6  | 1     | 5.000 | 10.0   | 1.0      | 1.0           | 1.187 | STD6  | 2024-11-18 13:11:57 UTC-5 | used |
| Standard 7  | 1     | 6.250 | 10.0   | 1.0      | 1.0           | 1.501 | STD7  | 2024-11-18 13:33:24 UTC-5 | used |

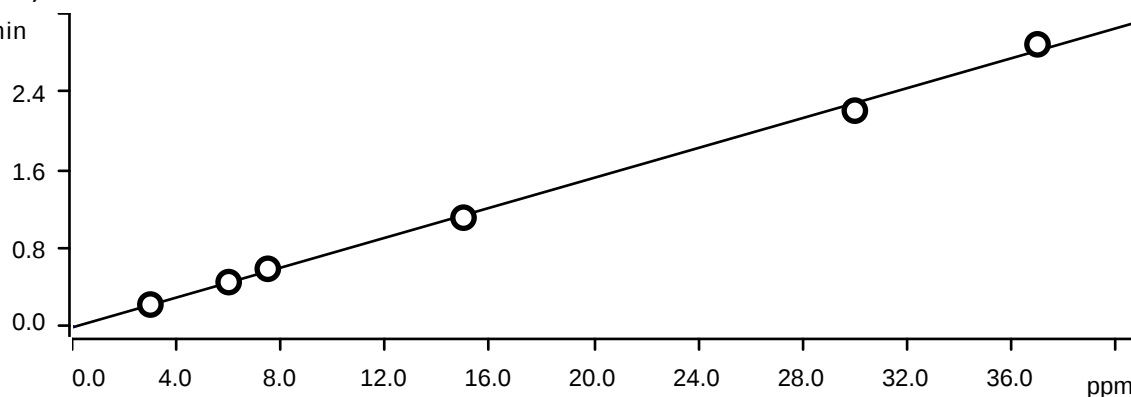
**Phosphate (Anions)** $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: . . . . .  $A = -2.33576E-3 + 8.30878E-3 \times Q$ 

Relative standard deviation . . . . . 4.444706 %

Correlation coefficient . . . . . 0.998936

| Sample type | Index | Conc.  | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|--------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000  | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2024-11-18 11:24:52 UTC-5 | used |
| Standard 2  | 1     | 1.000  | 10.0   | 1.0      | 1.0           | 0.083 | STD2  | 2024-11-18 11:46:16 UTC-5 | used |
| Standard 3  | 1     | 2.000  | 10.0   | 1.0      | 1.0           | 0.158 | STD3  | 2024-11-18 12:07:40 UTC-5 | used |
| Standard 4  | 1     | 2.500  | 10.0   | 1.0      | 1.0           | 0.219 | STD4  | 2024-11-18 12:29:05 UTC-5 | used |
| Standard 5  | 1     | 5.000  | 10.0   | 1.0      | 1.0           | 0.410 | STD5  | 2024-11-18 12:50:30 UTC-5 | used |
| Standard 6  | 1     | 10.000 | 10.0   | 1.0      | 1.0           | 0.799 | STD6  | 2024-11-18 13:11:57 UTC-5 | used |
| Standard 7  | 1     | 12.500 | 10.0   | 1.0      | 1.0           | 1.059 | STD7  | 2024-11-18 13:33:24 UTC-5 | used |

## Sulfate (Anions)

 $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: . . . . .  $A = -9.71222E-3 + 7.64397E-3 \times Q$ 

Relative standard deviation . . . . . 4.327283 %

Correlation coefficient . . . . . 0.998986

| Sample type | Index | Conc.  | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|--------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000  | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2024-11-18 11:24:52 UTC-5 | used |
| Standard 2  | 1     | 3.000  | 10.0   | 1.0      | 1.0           | 0.224 | STD2  | 2024-11-18 11:46:16 UTC-5 | used |
| Standard 3  | 1     | 6.000  | 10.0   | 1.0      | 1.0           | 0.454 | STD3  | 2024-11-18 12:07:40 UTC-5 | used |
| Standard 4  | 1     | 7.500  | 10.0   | 1.0      | 1.0           | 0.590 | STD4  | 2024-11-18 12:29:05 UTC-5 | used |
| Standard 5  | 1     | 15.000 | 10.0   | 1.0      | 1.0           | 1.112 | STD5  | 2024-11-18 12:50:30 UTC-5 | used |
| Standard 6  | 1     | 30.000 | 10.0   | 1.0      | 1.0           | 2.206 | STD6  | 2024-11-18 13:11:57 UTC-5 | used |
| Standard 7  | 1     | 37.000 | 10.0   | 1.0      | 1.0           | 2.884 | STD7  | 2024-11-18 13:33:24 UTC-5 | used |

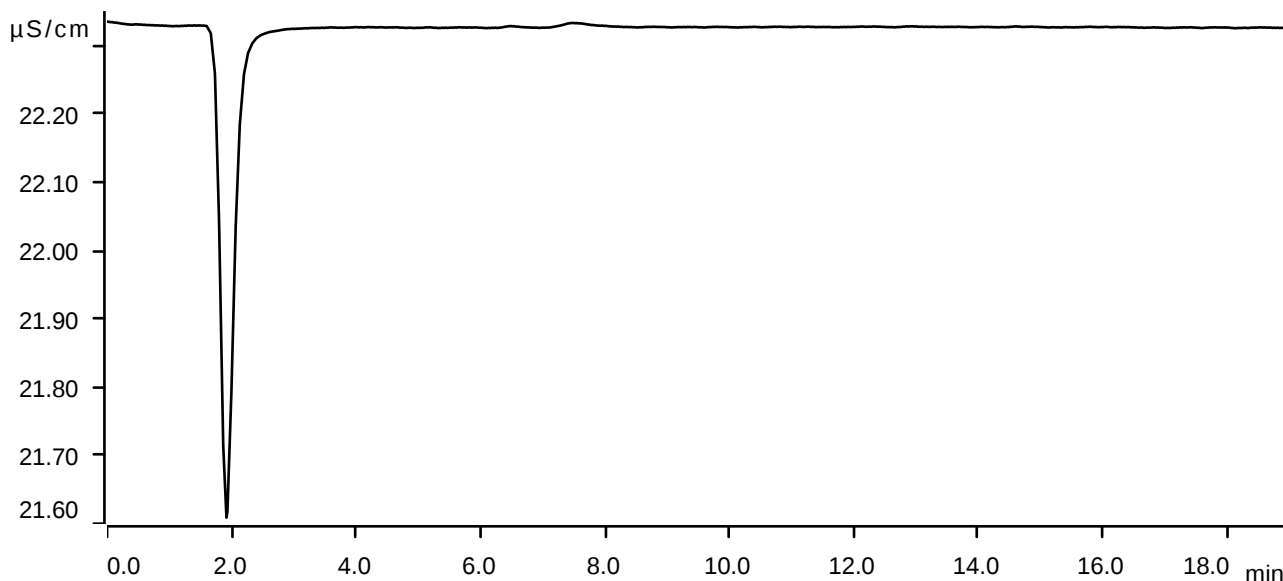
## Sample data

Ident . . . . . STD1  
Sample type . . . . . Standard 1  
Determination start . . . . . 2024-11-18 11:24:52 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.60 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



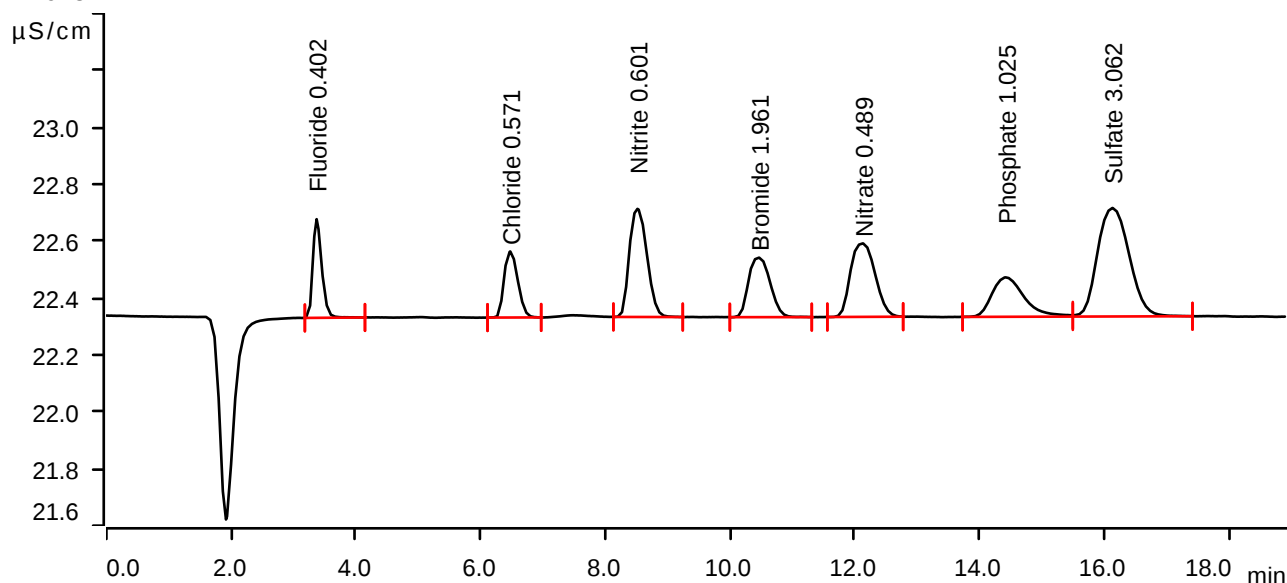
## Sample data

Ident . . . . . STD2  
Sample type . . . . . Standard 2  
Determination start . . . . . 2024-11-18 11:46:16 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.54 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.372                 | 0.0570                | 0.347           | 0.402                | Fluoride       |
| 2           | 6.477                 | 0.0592                | 0.232           | 0.571                | Chloride       |
| 3           | 8.515                 | 0.1247                | 0.380           | 0.601                | Nitrite        |
| 4           | 10.463                | 0.0840                | 0.209           | 1.961                | Bromide        |
| 5           | 12.127                | 0.1179                | 0.258           | 0.489                | Nitrate        |
| 6           | 14.418                | 0.0829                | 0.139           | 1.025                | Phosphate      |
| 7           | 16.130                | 0.2243                | 0.381           | 3.062                | Sulfate        |

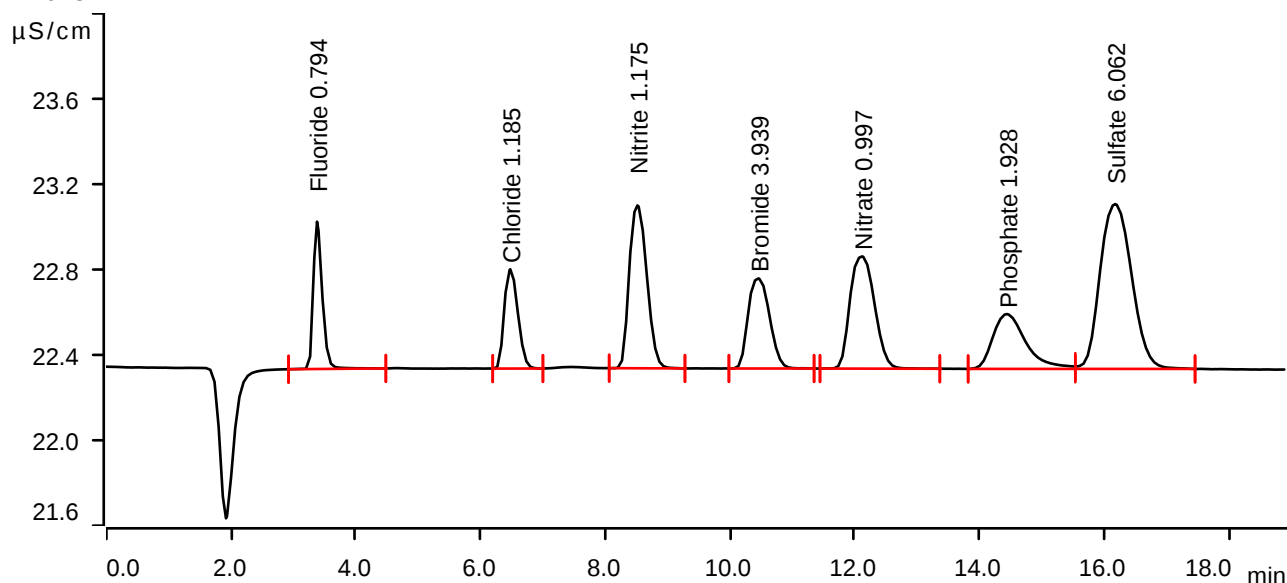
## Sample data

Ident . . . . . STD3  
Sample type . . . . . Standard 3  
Determination start . . . . . 2024-11-18 12:07:40 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.37 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.378                 | 0.1141                | 0.690           | 0.794                | Fluoride       |
| 2           | 6.478                 | 0.1175                | 0.465           | 1.185                | Chloride       |
| 3           | 8.515                 | 0.2490                | 0.763           | 1.175                | Nitrite        |
| 4           | 10.453                | 0.1680                | 0.422           | 3.939                | Bromide        |
| 5           | 12.117                | 0.2394                | 0.526           | 0.997                | Nitrate        |
| 6           | 14.440                | 0.1579                | 0.257           | 1.928                | Phosphate      |
| 7           | 16.173                | 0.4537                | 0.772           | 6.062                | Sulfate        |

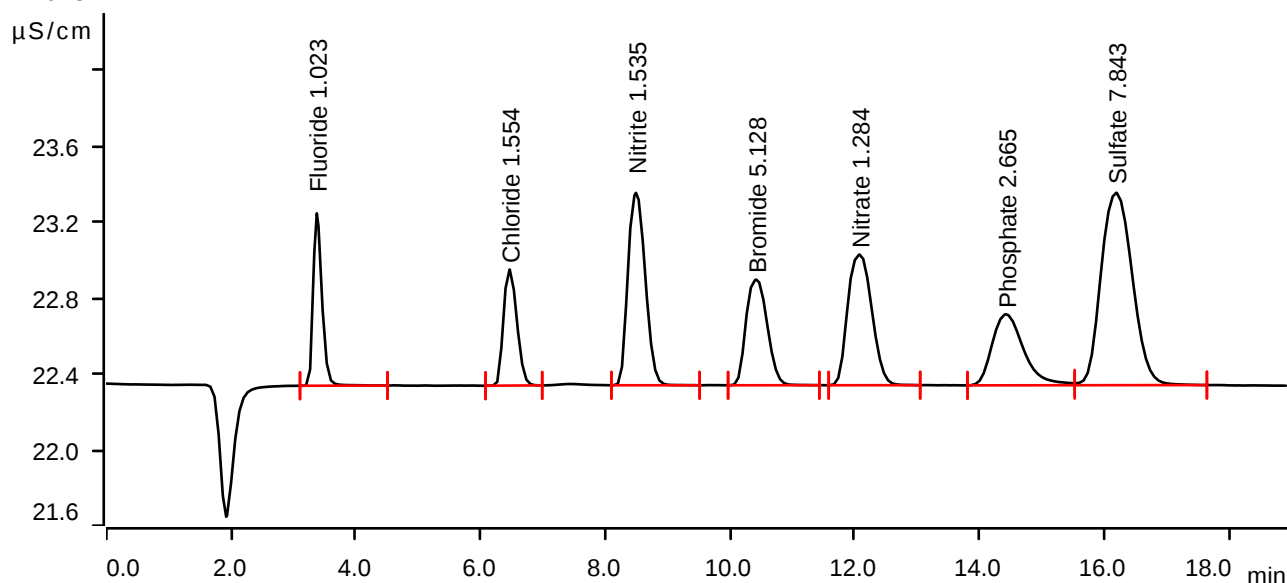
## Sample data

Ident . . . . . STD4  
Sample type . . . . . Standard 4  
Determination start . . . . . 2024-11-18 12:29:05 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.32 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.375                 | 0.1475                | 0.909           | 1.023                | Fluoride       |
| 2           | 6.465                 | 0.1525                | 0.612           | 1.554                | Chloride       |
| 3           | 8.493                 | 0.3268                | 1.014           | 1.535                | Nitrite        |
| 4           | 10.420                | 0.2185                | 0.557           | 5.128                | Bromide        |
| 5           | 12.077                | 0.3078                | 0.689           | 1.284                | Nitrate        |
| 6           | 14.427                | 0.2191                | 0.375           | 2.665                | Phosphate      |
| 7           | 16.192                | 0.5898                | 1.014           | 7.843                | Sulfate        |

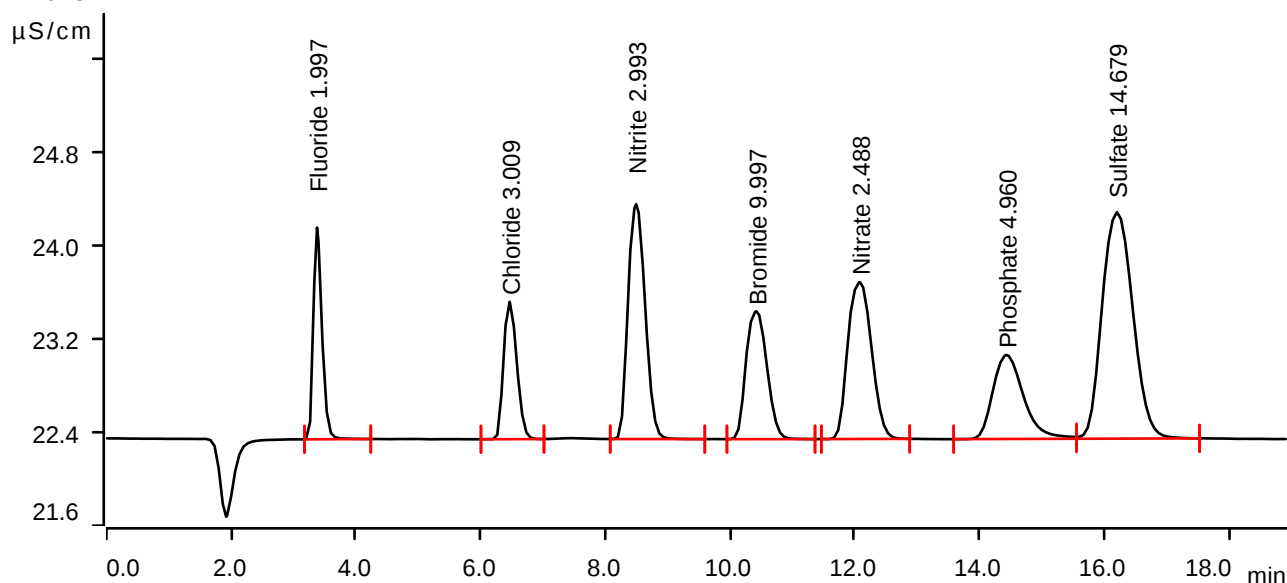
## Sample data

Ident . . . . . STD5  
Sample type . . . . . Standard 5  
Determination start . . . . . 2024-11-18 12:50:30 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.26 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.378                 | 0.2894                | 1.819           | 1.997                | Fluoride       |
| 2           | 6.467                 | 0.2908                | 1.180           | 3.009                | Chloride       |
| 3           | 8.495                 | 0.6422                | 2.018           | 2.993                | Nitrite        |
| 4           | 10.422                | 0.4253                | 1.098           | 9.997                | Bromide        |
| 5           | 12.082                | 0.5953                | 1.348           | 2.488                | Nitrate        |
| 6           | 14.432                | 0.4098                | 0.722           | 4.960                | Phosphate      |
| 7           | 16.203                | 1.1123                | 1.944           | 14.679               | Sulfate        |

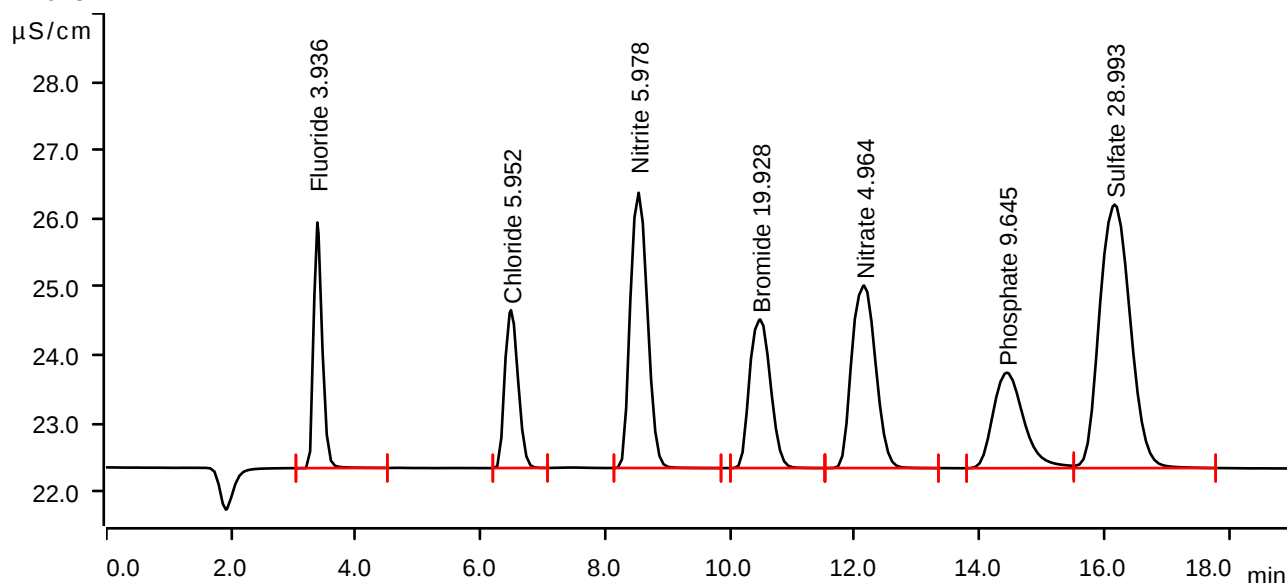
## Sample data

Ident . . . . . STD6  
Sample type . . . . . Standard 6  
Determination start . . . . . 2024-11-18 13:11:57 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.37 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.383                 | 0.5717                | 3.596           | 3.936                | Fluoride       |
| 2           | 6.488                 | 0.5704                | 2.311           | 5.952                | Chloride       |
| 3           | 8.533                 | 1.2879                | 4.031           | 5.978                | Nitrite        |
| 4           | 10.483                | 0.8469                | 2.176           | 19.928               | Bromide        |
| 5           | 12.148                | 1.1866                | 2.673           | 4.964                | Nitrate        |
| 6           | 14.438                | 0.7991                | 1.399           | 9.645                | Phosphate      |
| 7           | 16.165                | 2.2065                | 3.859           | 28.993               | Sulfate        |

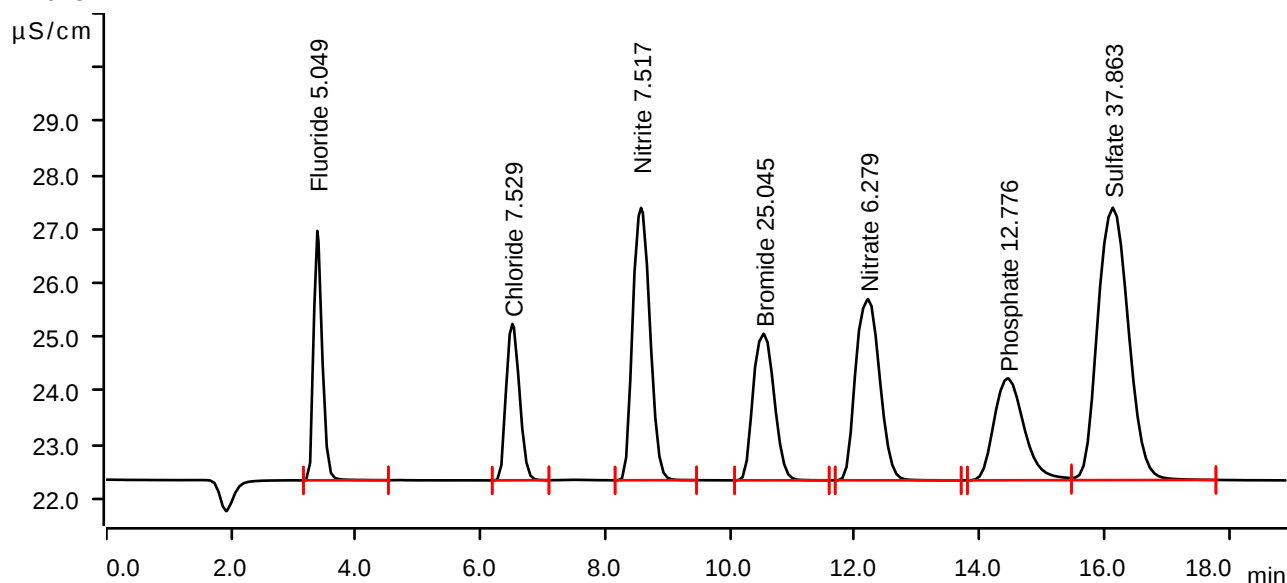
## Sample data

Ident . . . . . STD7  
Sample type . . . . . Standard 7  
Determination start . . . . . 2024-11-18 13:33:24 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.54 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.383                 | 0.7339                | 4.626           | 5.049                | Fluoride       |
| 2           | 6.510                 | 0.7203                | 2.901           | 7.529                | Chloride       |
| 3           | 8.573                 | 1.6208                | 5.052           | 7.517                | Nitrite        |
| 4           | 10.542                | 1.0642                | 2.717           | 25.045               | Bromide        |
| 5           | 12.213                | 1.5007                | 3.361           | 6.279                | Nitrate        |
| 6           | 14.452                | 1.0592                | 1.891           | 12.776               | Phosphate      |
| 7           | 16.138                | 2.8845                | 5.052           | 37.863               | Sulfate        |

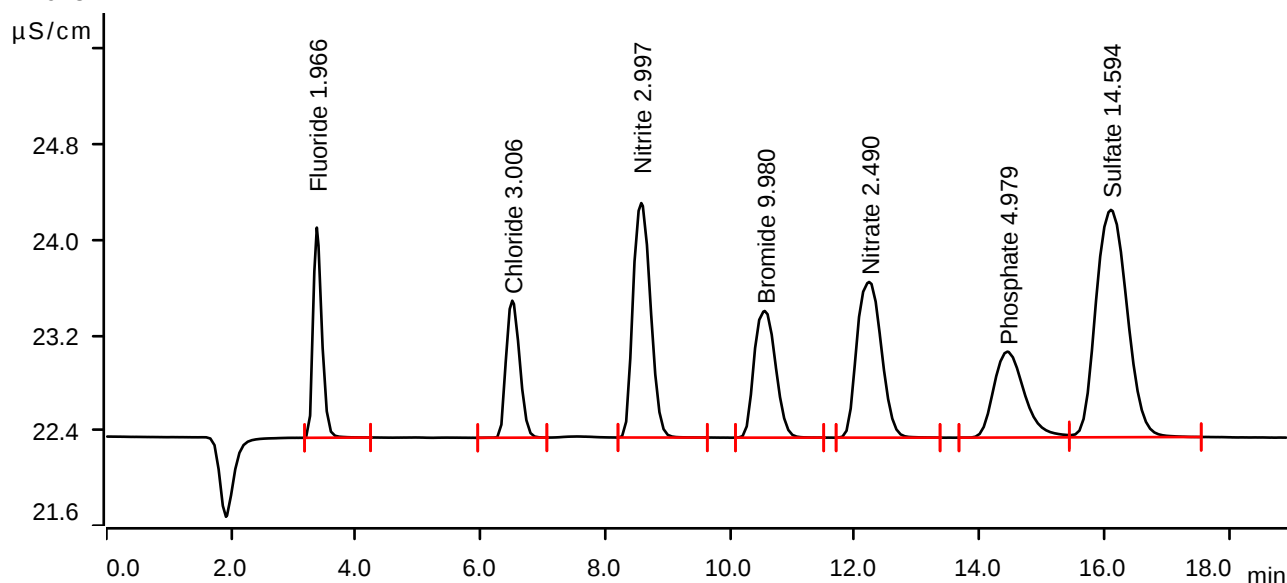
## Sample data

Ident . . . . . ICV  
Sample type . . . . . Check standard 1  
Determination start . . . . . 2024-11-18 13:54:44 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.66 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.375                 | 0.2848                | 1.764           | 1.966                | Fluoride       |
| 2           | 6.508                 | 0.2905                | 1.150           | 3.006                | Chloride       |
| 3           | 8.577                 | 0.6430                | 1.968           | 2.997                | Nitrite        |
| 4           | 10.557                | 0.4245                | 1.063           | 9.980                | Bromide        |
| 5           | 12.230                | 0.5959                | 1.307           | 2.490                | Nitrate        |
| 6           | 14.447                | 0.4114                | 0.721           | 4.979                | Phosphate      |
| 7           | 16.107                | 1.1058                | 1.909           | 14.594               | Sulfate        |

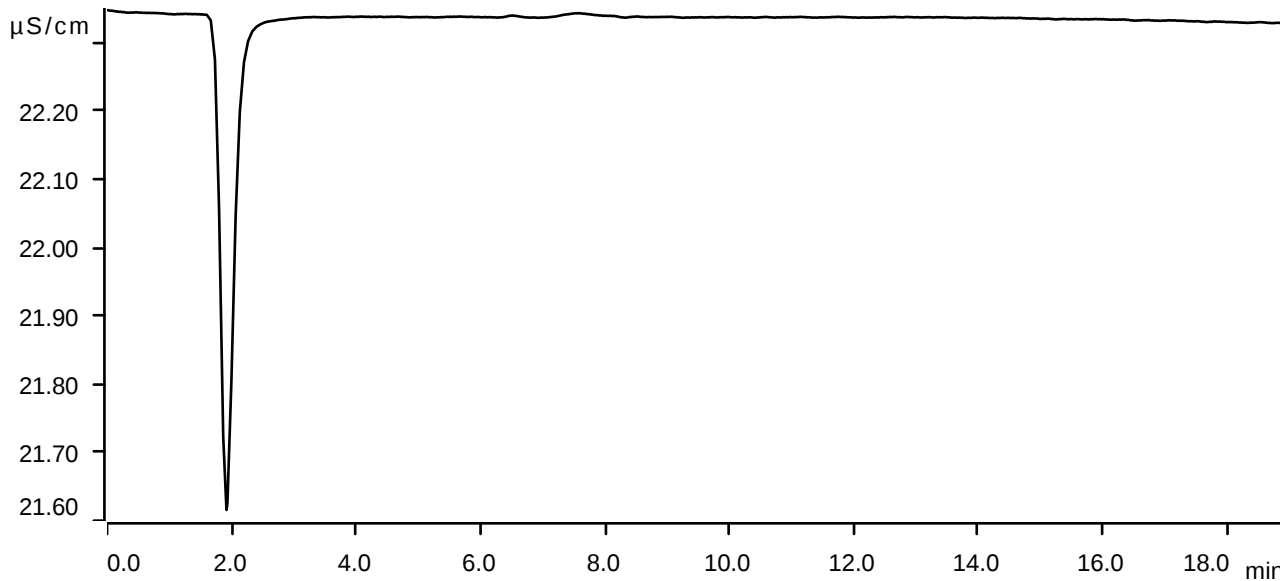
## Sample data

Ident . . . . . ICB  
Sample type . . . . . Sample  
Determination start . . . . . 2024-11-18 14:16:12 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.66 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



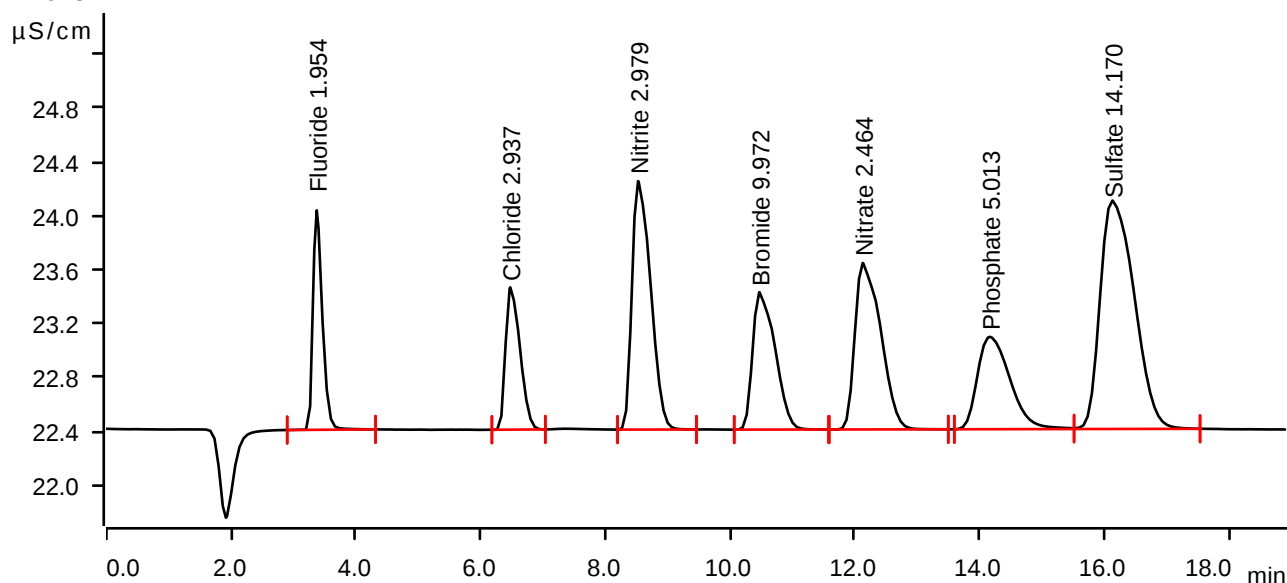
## Sample data

Ident . . . . . CCV  
Sample type . . . . . Check standard 1  
Determination start . . . . . 2024-11-26 12:56:00 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.60 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



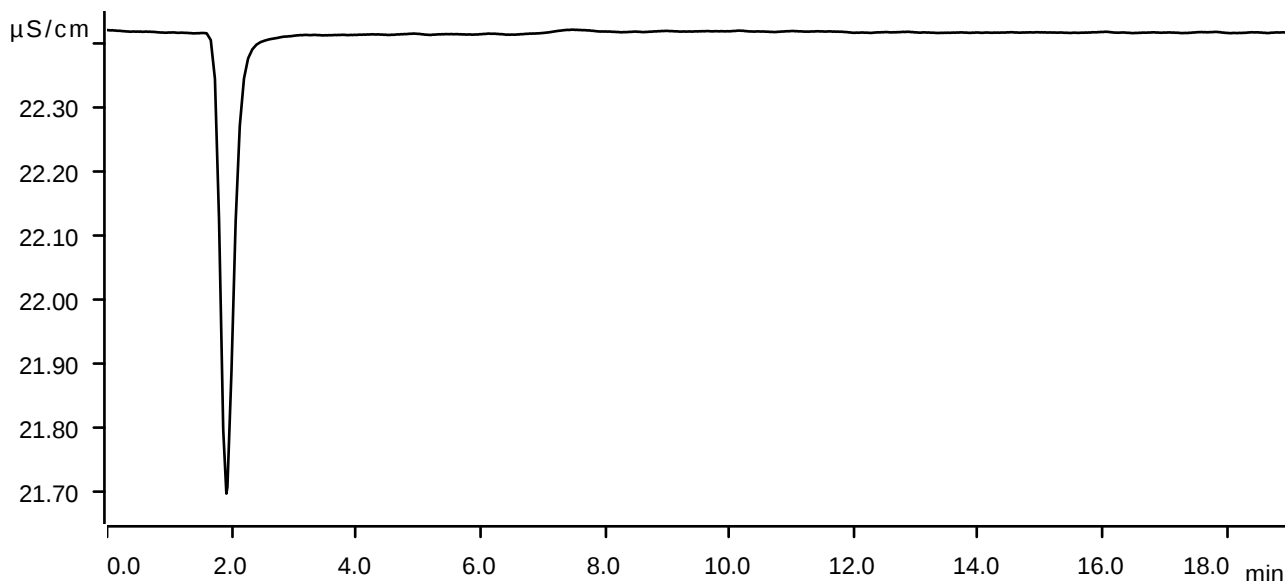
| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.373                 | 0.2831                | 1.628           | 1.954                | Fluoride       |
| 2           | 6.477                 | 0.2839                | 1.056           | 2.937                | Chloride       |
| 3           | 8.525                 | 0.6392                | 1.843           | 2.979                | Nitrite        |
| 4           | 10.472                | 0.4242                | 1.019           | 9.972                | Bromide        |
| 5           | 12.127                | 0.5897                | 1.234           | 2.464                | Nitrate        |
| 6           | 14.167                | 0.4142                | 0.685           | 5.013                | Phosphate      |
| 7           | 16.130                | 1.0734                | 1.694           | 14.170               | Sulfate        |

**Sample data**

Ident . . . . . CCB  
Sample type . . . . . Sample  
Determination start . . . . . 2024-11-26 13:17:30 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

**Anions**

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.54 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

**Anions**

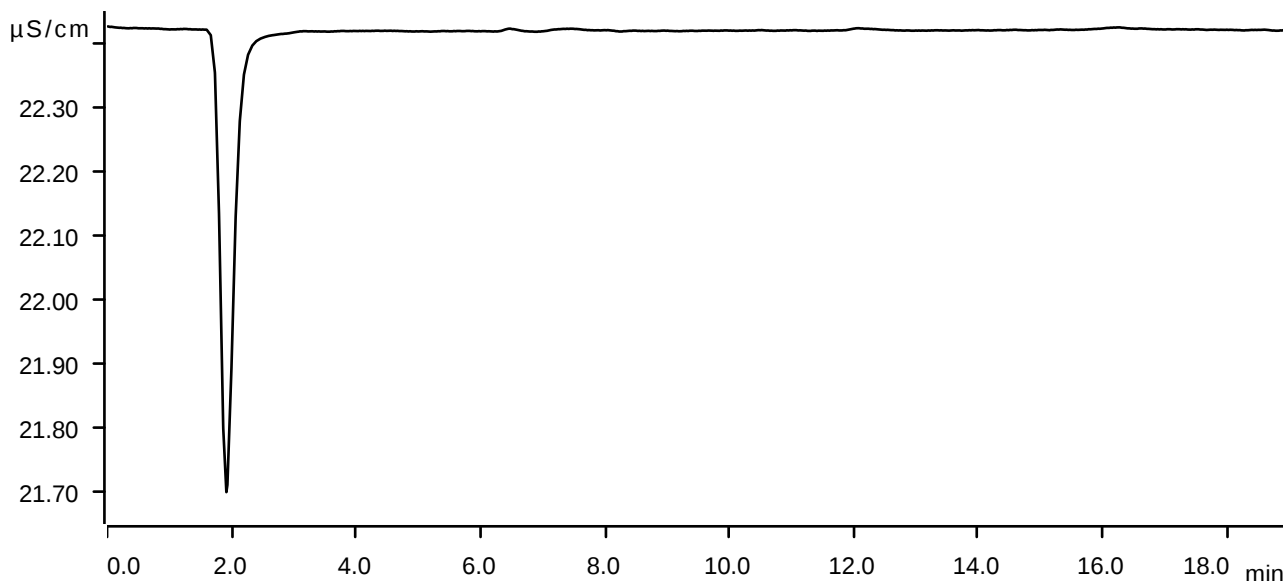
## Sample data

Ident . . . . . LB133643BLW  
Sample type . . . . . Sample  
Determination start . . . . . 2024-11-26 13:38:59 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.43 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



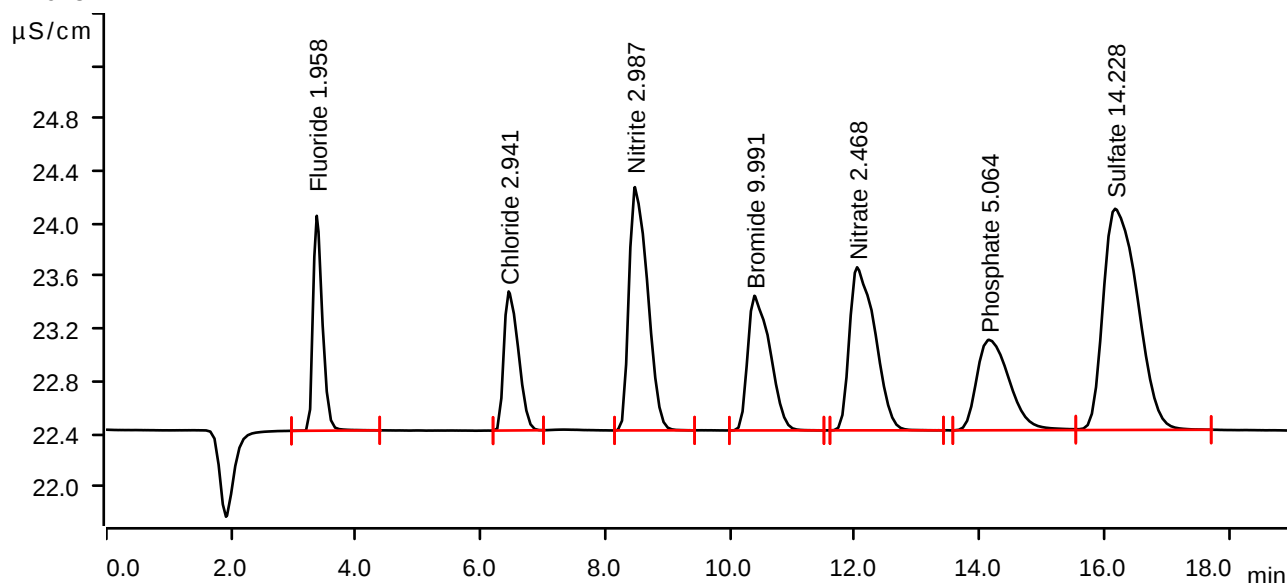
## Sample data

Ident . . . . . LB133643BSW  
Sample type . . . . . Check standard 1  
Determination start . . . . . 2024-11-26 14:00:30 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.37 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.373                 | 0.2837                | 1.636           | 1.958                | Fluoride       |
| 2           | 6.450                 | 0.2843                | 1.059           | 2.941                | Chloride       |
| 3           | 8.475                 | 0.6409                | 1.852           | 2.987                | Nitrite        |
| 4           | 10.390                | 0.4250                | 1.025           | 9.991                | Bromide        |
| 5           | 12.037                | 0.5905                | 1.242           | 2.468                | Nitrate        |
| 6           | 14.150                | 0.4184                | 0.689           | 5.064                | Phosphate      |
| 7           | 16.173                | 1.0778                | 1.684           | 14.228               | Sulfate        |

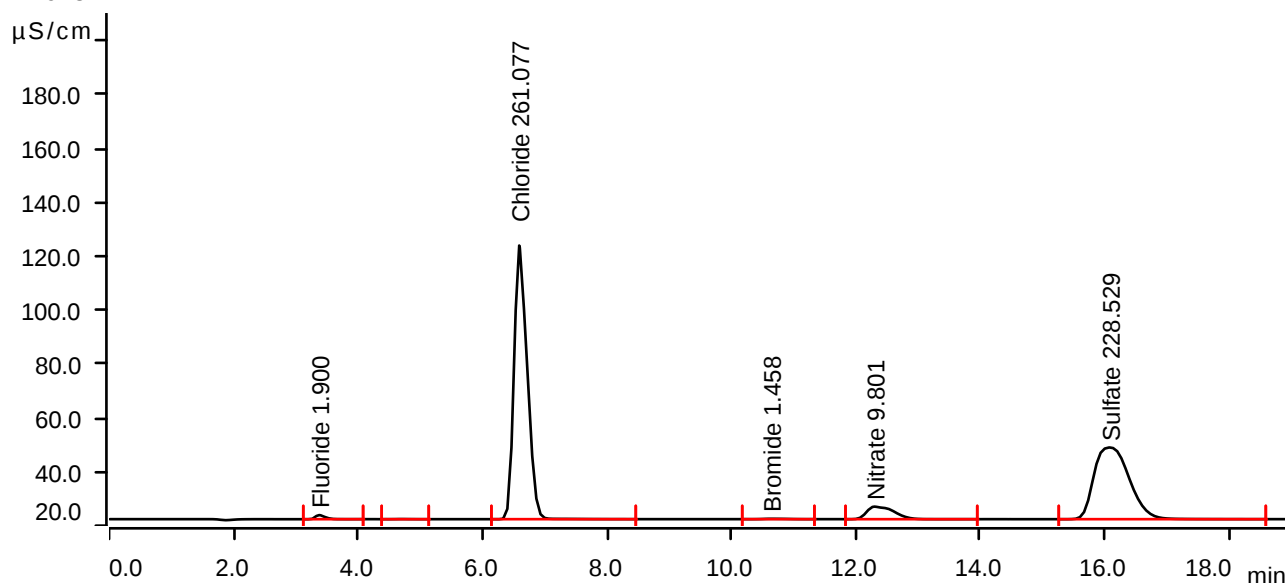
## Sample data

Ident . . . . . P5006-18  
Sample type . . . . . Sample  
Determination start . . . . . 2024-11-26 15:02:17 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.94 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.378                 | 0.2752                | 1.518           | 1.900                | Fluoride       |
| 2           | 4.702                 | 0.0106                | 0.047           | invalid              |                |
| 3           | 6.592                 | 24.8136               | 101.508         | 261.077              | Chloride       |
| 4           | 10.632                | 0.0627                | 0.143           | 1.458                | Bromide        |
| 5           | 12.302                | 2.3420                | 4.652           | 9.801                | Nitrate        |
| 6           | 16.082                | 17.4590               | 26.586          | 228.529              | Sulfate        |

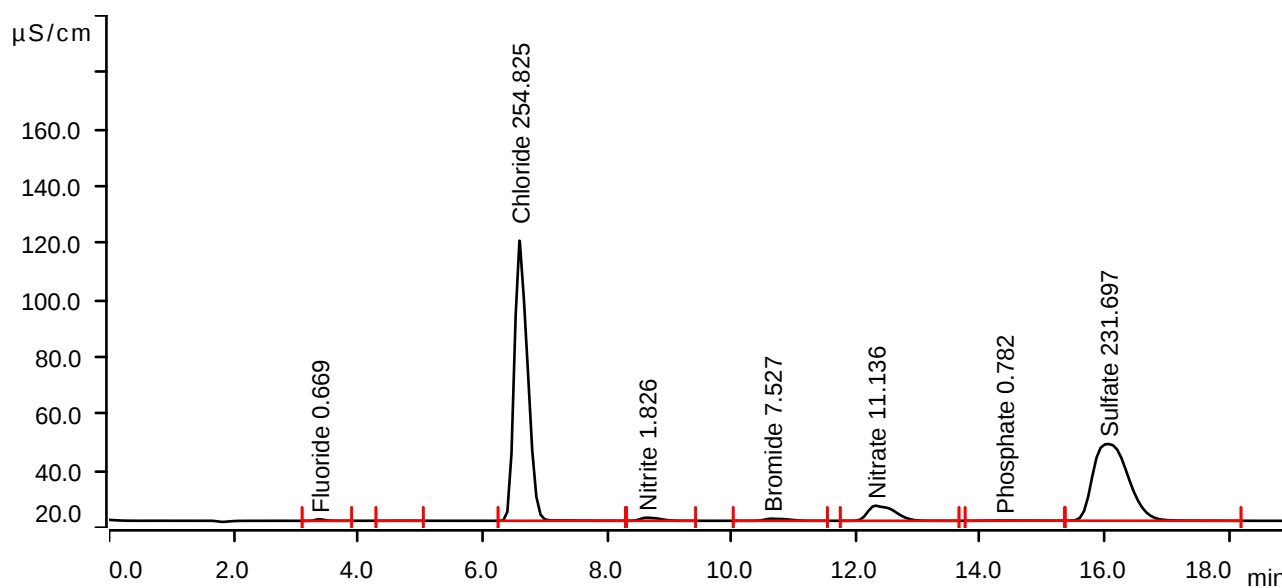
Sample data

Ident . . . . . P5006-18MS  
Sample type . . . . . Sample  
Determination start . . . . . 2024-11-26 15:23:54 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored yes  
Pressure . . . . . 12.05 MPa  
Maximum pressure monitored yes  
Temperature . . . . . ---- °C

Anions



| Peak number | Retention time<br>min | Area<br>( $\mu\text{S/cm}$ ) x min | Height<br>$\mu\text{S/cm}$ | Concentration<br>ppm | Component name |
|-------------|-----------------------|------------------------------------|----------------------------|----------------------|----------------|
| 1           | 3.378                 | 0.0959                             | 0.569                      | 0.669                | Fluoride       |
| 2           | 4.687                 | 0.0100                             | 0.045                      | invalid              |                |
| 3           | 6.595                 | 24.2194                            | 98.431                     | 254.825              | Chloride       |
| 4           | 8.635                 | 0.3897                             | 1.082                      | 1.826                | Nitrite        |
| 5           | 10.648                | 0.3204                             | 0.731                      | 7.527                | Bromide        |
| 6           | 12.315                | 2.6607                             | 5.298                      | 11.136               | Nitrate        |
| 7           | 14.380                | 0.0626                             | 0.080                      | 0.782                | Phosphate      |
| 8           | 16.052                | 17.7011                            | 26.944                     | 231.697              | Sulfate        |

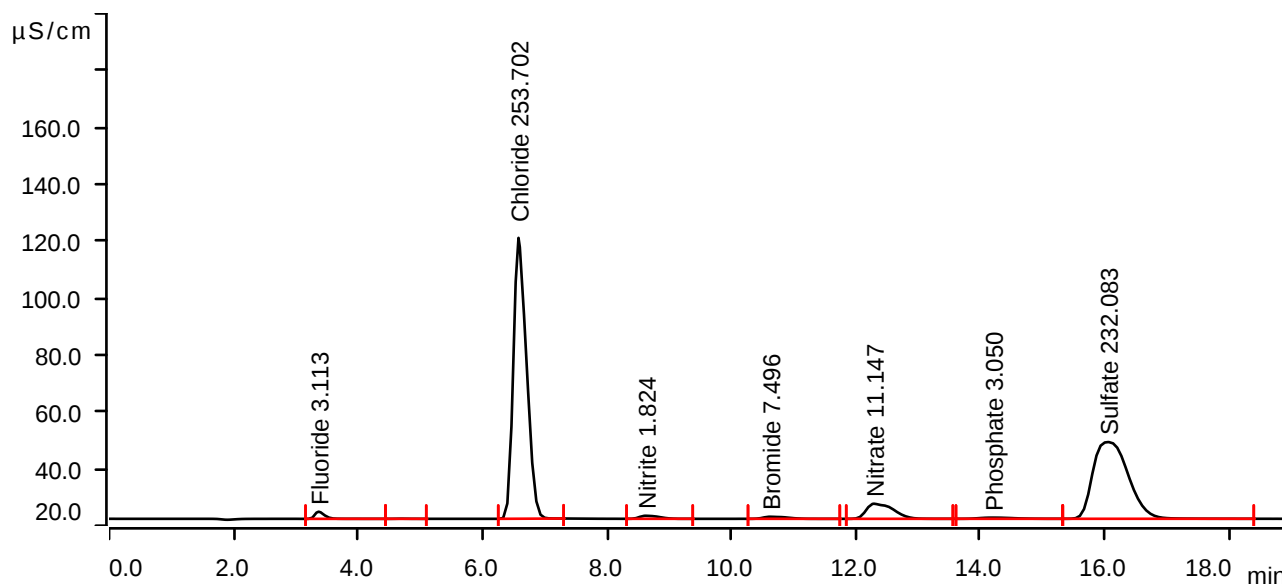
Sample data

Ident . . . . . P5006-18MSD  
Sample type . . . . . Sample  
Determination start . . . . . 2024-11-26 15:45:27 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored yes  
Pressure . . . . . 12.05 MPa  
Maximum pressure monitored yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>( $\mu\text{S/cm}$ ) x min | Height<br>$\mu\text{S/cm}$ | Concentration<br>ppm | Component name |
|-------------|-----------------------|------------------------------------|----------------------------|----------------------|----------------|
| 1           | 3.368                 | 0.4519                             | 2.516                      | 3.113                | Fluoride       |
| 2           | 4.700                 | 0.0104                             | 0.045                      | invalid              |                |
| 3           | 6.580                 | 24.1127                            | 98.707                     | 253.702              | Chloride       |
| 4           | 8.623                 | 0.3894                             | 1.072                      | 1.824                | Nitrite        |
| 5           | 10.623                | 0.3190                             | 0.730                      | 7.496                | Bromide        |
| 6           | 12.292                | 2.6635                             | 5.309                      | 11.147               | Nitrate        |
| 7           | 14.202                | 0.2511                             | 0.404                      | 3.050                | Phosphate      |
| 8           | 16.052                | 17.7307                            | 26.951                     | 232.083              | Sulfate        |

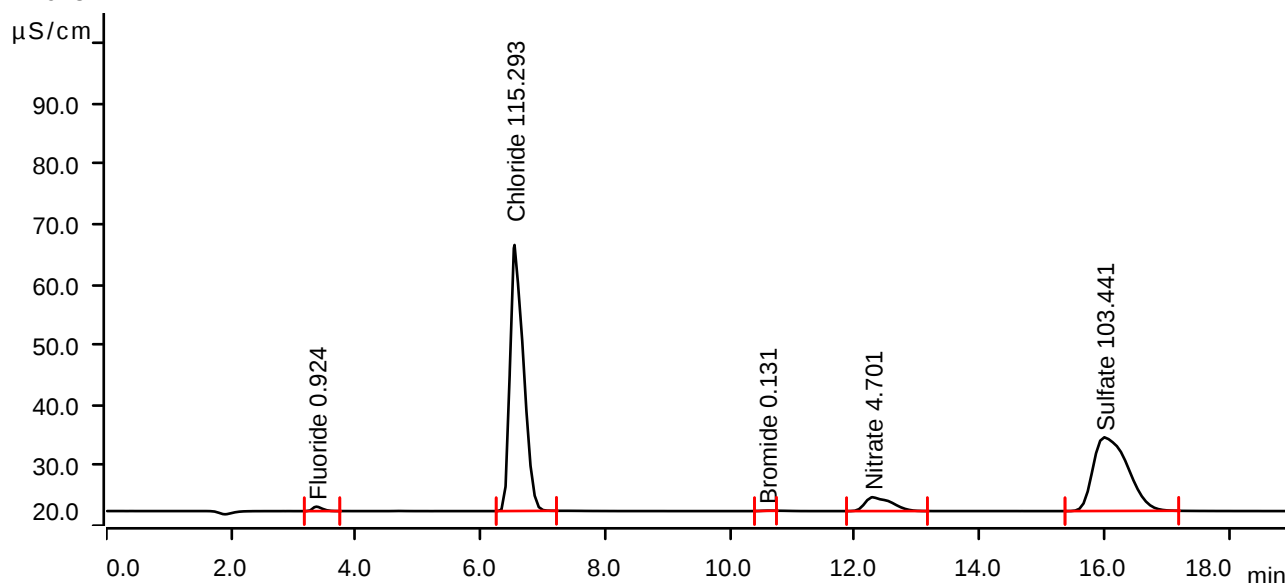
## Sample data

Ident . . . . . P5006-18DLX2  
Sample type . . . . . Sample  
Determination start . . . . . 2024-11-26 16:07:01 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 12.05 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.368                 | 0.1331                | 0.739           | 0.924                | Fluoride       |
| 2           | 6.545                 | 10.9605               | 44.151          | 115.293              | Chloride       |
| 3           | 10.608                | 0.0063                | 0.034           | 0.131                | Bromide        |
| 4           | 12.283                | 1.1239                | 2.300           | 4.701                | Nitrate        |
| 5           | 16.000                | 7.8973                | 12.228          | 103.441              | Sulfate        |

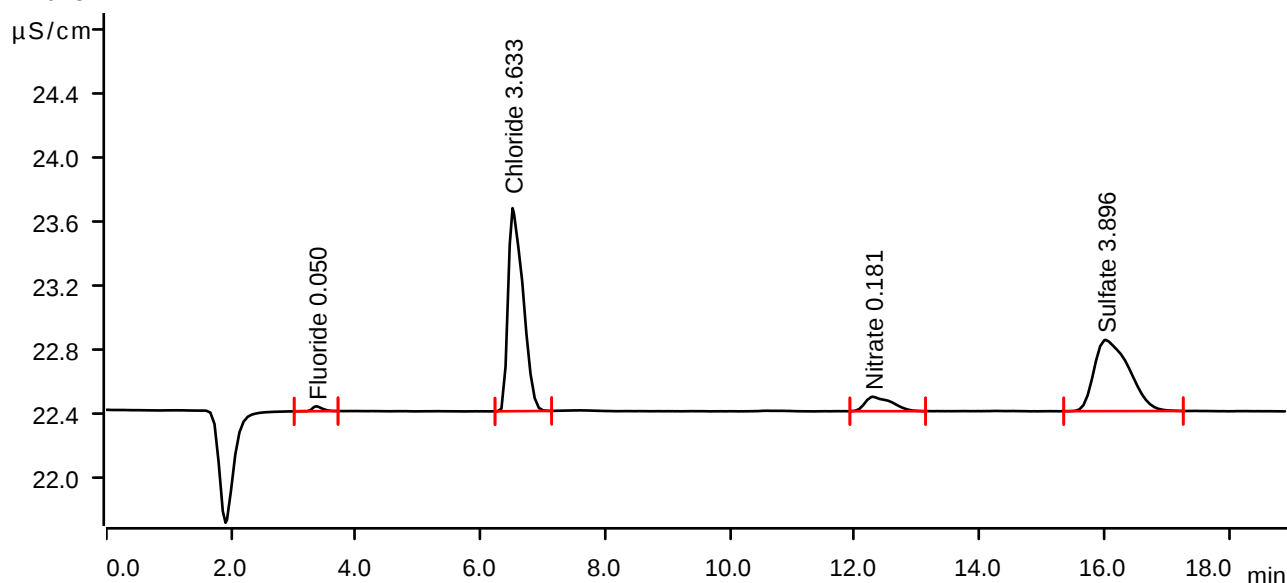
## Sample data

Ident . . . . . P5006-18DL2X50  
Sample type . . . . . Sample  
Determination start . . . . . 2024-11-26 16:28:34 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.99 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.370                 | 0.0057                | 0.030           | 0.050                | Fluoride       |
| 2           | 6.513                 | 0.3500                | 1.269           | 3.633                | Chloride       |
| 3           | 12.290                | 0.0443                | 0.090           | 0.181                | Nitrate        |
| 4           | 16.020                | 0.2881                | 0.445           | 3.896                | Sulfate        |

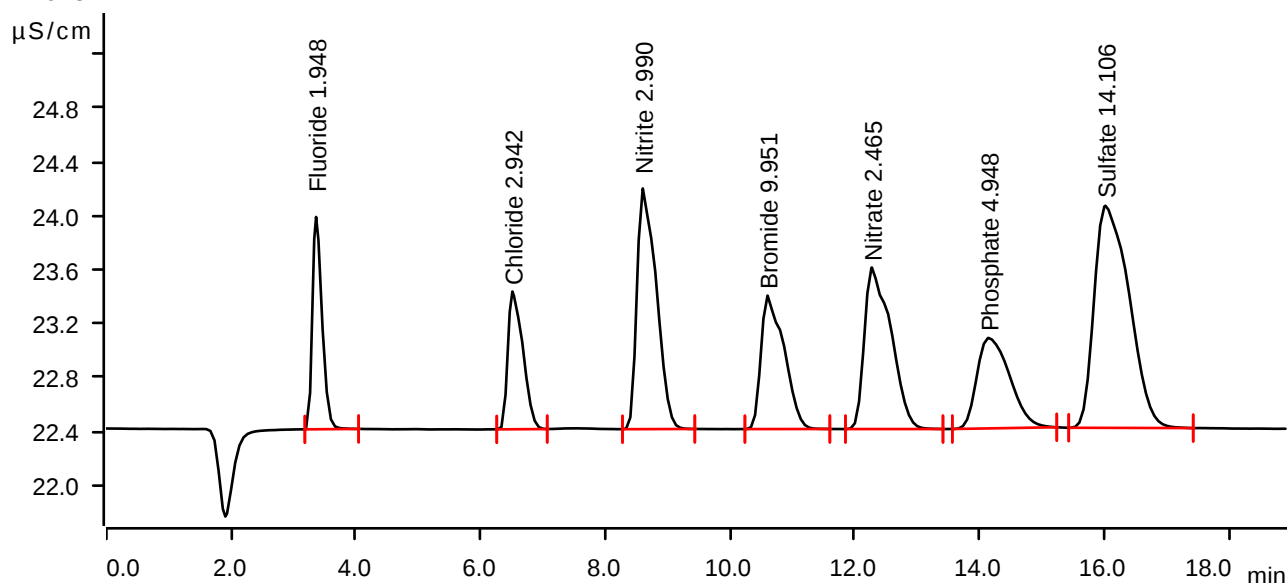
## Sample data

Ident . . . . . CCV  
Sample type . . . . . Check standard 1  
Determination start . . . . . 2024-11-26 16:50:09 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.99 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.363                 | 0.2823                | 1.575           | 1.948                | Fluoride       |
| 2           | 6.510                 | 0.2845                | 1.022           | 2.942                | Chloride       |
| 3           | 8.600                 | 0.6415                | 1.786           | 2.990                | Nitrite        |
| 4           | 10.600                | 0.4233                | 0.990           | 9.951                | Bromide        |
| 5           | 12.273                | 0.5899                | 1.199           | 2.465                | Nitrate        |
| 6           | 14.145                | 0.4088                | 0.671           | 4.948                | Phosphate      |
| 7           | 16.018                | 1.0685                | 1.648           | 14.106               | Sulfate        |

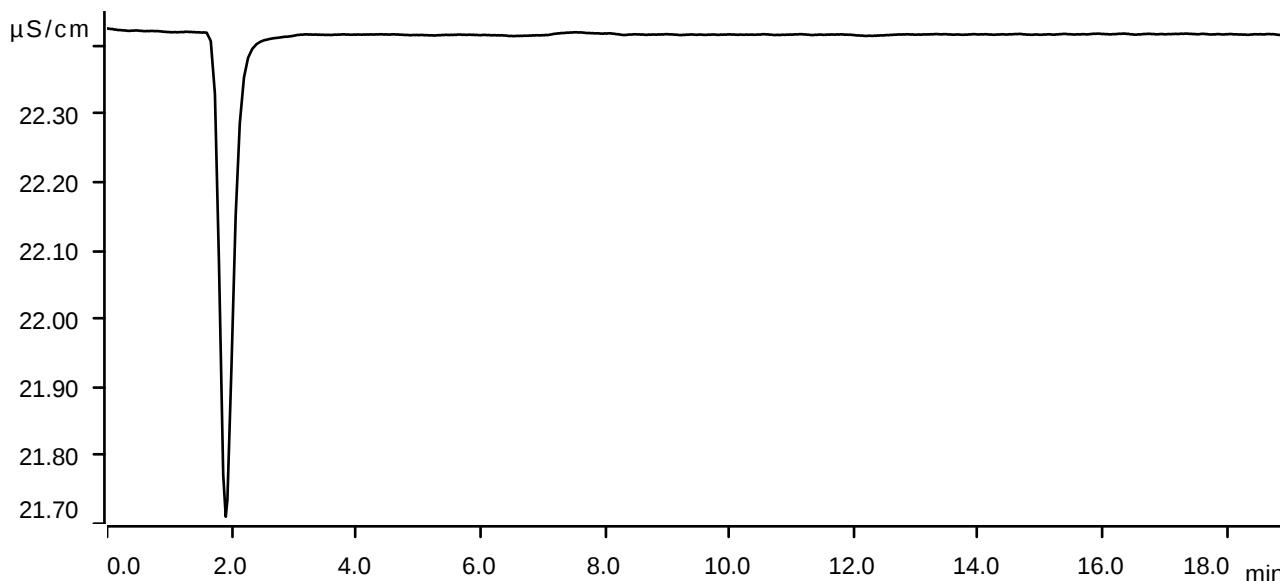
## Sample data

Ident . . . . . CCB  
Sample type . . . . . Sample  
Determination start . . . . . 2024-11-26 17:11:38 UTC-5  
Method . . . . . IC1-111824  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.94 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



# Analytical Summary Report

Analysis Method: 9040C  
Parameter: pH  
Run Number: LB133647

Analyst By : jignesh  
Supervisor Review By : Iwona  
Slope : 98.5  
pH Meter ID : WC PH METER-1

| Calibration Standards          | Chemtech Log# |
|--------------------------------|---------------|
| PH 4 BUFFER SOLUTION           | W3107         |
| BUFFER PH 7.00 GREEN 1PINT PK6 | W3093         |
| PH 10.01 BUFFER,COLOR CD 475ML | W3094         |
| buffer solution pH 7 yellow    | W3071         |
| Buffer Solution, PH2 (500ml)   | W3005         |
| Buffer Solution, PH12 (500ml)  | W3072         |

True Value of ICV = 7.00 Control Limits[+/- 0.1].

True Value of CCV1 = 2.00 Control Limits[+/- 0.1].

True Value of CCV2 = 12.00 Control Limits[+/- 0.1].

| Seq | LabID       | DF | Matrix | Weight (gm) | Volume (ml) | Temperature (°C) | Result (pH) | Anal Date  | Anal Time |
|-----|-------------|----|--------|-------------|-------------|------------------|-------------|------------|-----------|
| 1   | CAL1        | 1  | Water  | NA          | NA          | 20.3             | 4.01        | 11/26/2024 | 15:35     |
| 2   | CAL2        | 1  | Water  | NA          | NA          | 20.3             | 7.00        | 11/26/2024 | 15:36     |
| 3   | CAL3        | 1  | Water  | NA          | NA          | 20.3             | 10.02       | 11/26/2024 | 15:38     |
| 4   | ICV         | 1  | Water  | NA          | NA          | 20.3             | 7.01        | 11/26/2024 | 15:40     |
| 5   | CCV1        | 1  | Water  | NA          | NA          | 20.3             | 2.01        | 11/26/2024 | 15:44     |
| 6   | P5006-18    | 1  | Water  | NA          | NA          | 20.7             | 6.10        | 11/26/2024 | 15:57     |
| 7   | P5006-18DUP | 1  | Water  | NA          | NA          | 20.8             | 6.11        | 11/26/2024 | 15:58     |
| 8   | P5013-02    | 1  | Water  | NA          | NA          | 20.7             | 6.67        | 11/26/2024 | 16:10     |
| 9   | CCV2        | 1  | Water  | NA          | NA          | 20.3             | 12.02       | 11/26/2024 | 16:15     |

WORKLIST(Hardcopy Internal Chain)

VB133647

WorkList Name : ph p5006

WorkList ID : 185806

Department : Wet-Chemistry

Date : 11-26-2024 15:24:52

| Sample     | Customer Sample | Matrix | Test | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method |
|------------|-----------------|--------|------|--------------|----------|-----------------------------|--------------|--------|
| P5006-18 B | TW-WTS-02       | Water  | pH   | Cool 4 deg C | ENTA05   | L51                         | 11/25/2024   | 9040C  |
| P5013-02 A | SPILL-1125-B    | Water  | pH   | Cool 4 deg C | PSEG03   | L51                         | 11/26/2024   | 9040C  |

Date/Time 11-26-24 15:30

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time

11-26-24

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

# Analytical Summary Report

Analysis Method: 1010B  
Parameter: Flash Point  
Run Number: LB133649  
Thermometer ID: Flash Point

Reviewed By: rubina  
Supervisor Review By: Iwona  
Ambient Barometric Pressure (mmHg): 771.00  
Barometric Scale ID: 0511064

| Reagent/Standard | Lot/Log # |
|------------------|-----------|
| p-xylene (ICV)   | W3088     |

| Seq | LabID       | True Value °F | DL | Initial Sample °C | Celsius °C | Result °F | Final Result °F | Anal Date  | Anal Time |
|-----|-------------|---------------|----|-------------------|------------|-----------|-----------------|------------|-----------|
| 1   | ICV         | 81            | 1  | 8                 | 28.00      | 82.4      | 81.7            | 12/02/2024 | 09:35     |
| 2   | P4972-01    |               | 1  | 14                | 100.00     | >212.0    | >212.0          | 12/02/2024 | 10:05     |
| 3   | P4972-02    |               | 1  | 11                | 100.00     | >212.0    | >212.0          | 12/02/2024 | 10:35     |
| 4   | P4972-03    |               | 1  | 11                | 100.00     | >212.0    | >212.0          | 12/02/2024 | 12:10     |
| 5   | P4972-05    |               | 1  | 14                | 100.00     | >212.0    | >212.0          | 12/02/2024 | 12:40     |
| 6   | P5006-18    |               | 1  | 13                | 100.00     | >212.0    | >212.0          | 12/02/2024 | 13:10     |
| 7   | P5006-18DUP |               | 1  | 13                | 100.00     | >212.0    | >212.0          | 12/02/2024 | 13:40     |

Result = (Celsius \* 1.8) + 32

Final Result = Result + (760 - Ambient Barometric Pressure) \* 0.06

# WORKLIST(Hardcopy Internal Chain)

LB133649.

WorkList Name : fp-12-2      WorkList ID : 185881      Department : Wet-Chemistry      Date : 12-02-2024 08:50:01

| Sample   | Customer Sample | Matrix | Test        | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method |
|----------|-----------------|--------|-------------|--------------|----------|-----------------------------|--------------|--------|
| P4972-01 | 111524-A        | Water  | Flash Point | Cool 4 deg C | PSEG03   | L41                         | 11/22/2024   | 1010B  |
| P4972-02 | 111524-B        | Water  | Flash Point | Cool 4 deg C | PSEG03   | L41                         | 11/22/2024   | 1010B  |
| P4972-03 | 912-A           | Water  | Flash Point | Cool 4 deg C | PSEG03   | L41                         | 11/22/2024   | 1010B  |
| P4972-05 | 628-F           | Water  | Flash Point | Cool 4 deg C | PSEG03   | L41                         | 11/22/2024   | 1010B  |
| P5006-18 | TW-WTS-02       | Water  | Flash Point | Cool 4 deg C | ENTA05   | L51                         | 11/25/2024   | 1010B  |

Date/Time 12/02/2024 09:25  
 Raw Sample Received by: RM  
 Raw Sample Relinquished by: JH WELC 1

Date/Time 12/02/2024 14:15  
 Raw Sample Received by: RM  
 Raw Sample Relinquished by: RM WELC

# TOTAL SOLIDS - SM2540B

SUPERVISOR: Iwona

ANALYST: Niha

Date: 11/26/2024

Run Number: LB133654

BalanceID: WC SC-6

OvenID: WC OVEN-1

ThermometerID: WET OVEN#1

TEMP1 IN: 103 °C 11/26/2024 11:00 TEMP1 OUT: 104 °C 11/26/2024 12:00  
 TEMP2 IN: 103 °C 11/26/2024 12:30 TEMP2 OUT: 104 °C 11/26/2024 13:30  
 TEMP3 IN: 103 °C 11/26/2024 16:00 TEMP3 OUT: 104 °C 11/27/2024 08:00  
 TEMP4 IN: 103 °C 11/27/2024 08:30 TEMP4 OUT: 104 °C 11/27/2024 10:00

| Dish # | Lab ID     | Client ID  | Empty Dish Weight (g) | Final Empty Dish Weight (g) | Sample Vol (ml) | Original weight 1st Dish+Sample weight after Drying @103-@105°C (g) | Constant weight 2nd Dish+Sample weight after Drying @103-@105°C (g) | Final Constant weight Final Dish+Sample weight after Drying @103-@105°C (g) | Weight (g) | Result (mg/L) |
|--------|------------|------------|-----------------------|-----------------------------|-----------------|---------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------|------------|---------------|
| 1      | LB133654BL | LB133654BL | 58.7523               | 58.7523                     | 100             | 58.7523                                                             | 58.7523                                                             | 58.7523                                                                     | 0.0000     | 0             |
| 2      | P5006-18   | TW-WTS-02  | 85.1122               | 85.1122                     | 100             | 85.1815                                                             | 85.1815                                                             | 85.1815                                                                     | 0.0693     | 693           |

A = Sample Volume (ml)

B = Final Empty Dish Weight (g)

C = Final Dish+Sample weight after Drying @103-@105°C (g)

$$\text{Result mg/L} = ((C - B) / A) * 1000 * 1000$$

LB133654

WORKLIST(Hardcopy Internal Chain)

WorkList Name : TS-11262024

WorkList ID : 135839

Department : Wet-Chemistry

Date : 11-26-2024 14:11:07

| Sample   | Customer Sample | Matrix | Test | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method   |
|----------|-----------------|--------|------|--------------|----------|-----------------------------|--------------|----------|
| P5006-18 | TW-WTS-02       | Water  | TS   | Cool 4 deg C | ENTA05   | L51                         | 11/25/2024   | SM2540 B |

Date/Time 11-26-2024, 15:00  
Raw Sample Received by: NFWC  
Raw Sample Relinquished by: JH Gell

Date/Time 11-26-2024, 17:00  
Raw Sample Received by: JH Gell  
Raw Sample Relinquished by: NFWC

**TOTAL SUSPENDED SOLIDS - SM2540D**

**TEMP1 IN:** 103 °C 11/26/2024 11:00    **TEMP1 OUT:** 104 °C 11/26/2024 12:00  
**TEMP2 IN:** 103 °C 11/26/2024 12:30    **TEMP2 OUT:** 104 °C 11/26/2024 13:30  
**TEMP3 IN:** 103 °C 11/27/2024 08:30    **TEMP3 OUT:** 104 °C 11/27/2024 10:00  
**TEMP4 IN:** 103 °C 11/27/2024 10:30    **TEMP4 OUT:** 104 °C 11/27/2024 12:00

**SUPERVISOR:** Iwona

**ANALYST:** Niha

**Date:** 11/26/2024

**Run Number:** LB133658

**BalanceID:** WC SC-6

**OvenID:** WC OVEN-1

**FilterID:** 17416528

**ThermometerID:** WET OVEN#1

| Dish # | Lab ID      | Client ID  | Empty Dish Weight (g) | Final Empty Dish Weight (g) | Sample Volume (ml) | 1st Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g) | 2nd Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g) | Final Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g) | Weight (g) | Result mg/L |
|--------|-------------|------------|-----------------------|-----------------------------|--------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------|------------|-------------|
| 1      | LB133658BL  | LB133658BL | 1.4124                | 1.4124                      | 100                | 1.4124                                                          | 1.4124                                                          | 1.4124                                                            | 0.0000     | 0           |
| 2      | LB133658BS  | LB133658BS | 1.3987                | 1.3987                      | 100                | 1.4523                                                          | 1.4523                                                          | 1.4523                                                            | 0.0536     | 536         |
| 3      | P5006-18    | TW-WTS-02  | 1.3970                | 1.3970                      | 200                | 1.3978                                                          | 1.3978                                                          | 1.3978                                                            | 0.0008     | 4           |
| 4      | P5018-01    | 14B-1      | 1.4024                | 1.4024                      | 10                 | 1.4378                                                          | 1.4378                                                          | 1.4378                                                            | 0.0354     | 3540        |
| 5      | P5018-02    | 14B-2      | 1.3742                | 1.3742                      | 10                 | 1.4090                                                          | 1.4090                                                          | 1.4090                                                            | 0.0348     | 3480        |
| 6      | P5018-03    | 14B-3      | 1.3918                | 1.3918                      | 10                 | 1.4300                                                          | 1.4300                                                          | 1.4300                                                            | 0.0382     | 3820        |
| 7      | P5018-04    | 14B-4      | 1.3934                | 1.3934                      | 10                 | 1.4461                                                          | 1.4461                                                          | 1.4461                                                            | 0.0527     | 5270        |
| 8      | P5018-04DUP | 14B-4DUP   | 1.4011                | 1.4011                      | 10                 | 1.4518                                                          | 1.4518                                                          | 1.4518                                                            | 0.0507     | 5070        |

A = Sample Volume (ml)

B = Final Empty Dish Weight (g)

C = Final Empty Dish + Sample weight after 1.5 hr drying @105°C(g)

D = Weight (g)

Weight (g) = C - B

Result mg/L =  $\frac{D}{A} \times 1000 \times 1000$

WORKLIST(Hardcopy Internal Chain)

LB133658

WorkList Name : TSS-11262024

WorkList ID : 185803

Department : Wet-Chemistry

Date : 11-26-2024 15:12:03

| Sample   | Customer Sample | Matrix | Test | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method   |
|----------|-----------------|--------|------|--------------|----------|-----------------------------|--------------|----------|
| P5006-18 | TW-WTS-02       | Water  | TSS  | Cool 4 deg C | ENTA05   | L51                         | 11/25/2024   | SM2540 D |
| P5018-01 | 14B-1           | Water  | TSS  | Cool 4 deg C | NEWY17   | L51                         | 11/26/2024   | SM2540 D |
| P5018-02 | 14B-2           | Water  | TSS  | Cool 4 deg C | NEWY17   | L51                         | 11/26/2024   | SM2540 D |
| P5018-03 | 14B-3           | Water  | TSS  | Cool 4 deg C | NEWY17   | L51                         | 11/26/2024   | SM2540 D |
| P5018-04 | 14B-4           | Water  | TSS  | Cool 4 deg C | NEWY17   | L51                         | 11/26/2024   | SM2540 D |

Date/Time 11/27/2024 08:00  
Raw Sample Received by: NF(wc)  
Raw Sample Relinquished by: RD Wells

Date/Time 11/27/2024 09:00  
Raw Sample Received by: M Lee  
Raw Sample Relinquished by: NF(wc)

# BOD5 LOG

ANALYST: Niha

SUPERVISOR: Iwona

Analysis Date: 11/27/2024

MANGANOUS SULFATE SOLUTION: W3103

Alkaline Iodide Azide: W3109

Sodium Thiosulfate, 0.025N: W3105

NaOH, 1N: WP108662

IncubatorID: INCUBATOR #3

GuageID: 0511062

Zero DO: WP110595

QC BATCH ID: LB133668

BOD Water: WP110892

Starch: W3149

Sulfuric acid, 1N: WP110386

POLYSEED: WP110894

GGA: WP110893

Chlorine Strips: W2965

pH Strips: W3140

| Lab SampleID | Client ID | Bottle No. | VOL. ML | Initial Reading (ML) | Final Reading (ML) | Difference | Average |
|--------------|-----------|------------|---------|----------------------|--------------------|------------|---------|
| WINKLER 1    | WINKLER 1 | 1          | 300     | 0.0                  | 9.5                | 9.5        | 9.5     |
| WINKLER 2    | WINKLER 2 | 2          | 300     | 9.1                  | 18.6               | 9.5        | 9.5     |

Meter Calibration1: 9.38 Zero DO Reading1: 0.12 mg/L (<=0.2 Criteria)

Barometric Pressure1: 771 mmHg DO Meter BOD fluid reading for winkler comparison: 9.51

## After Incubation

Meter Calibration2: 9.58 Zero DO Reading2: 0.12 mg/L (<=0.2 Criteria)

Barometric Pressure2: 771 mmHg

QC BATCH ID: LB133668

INCUBATOR TEMP IN(C): 20.6

INCUBATOR TEMP OUT(C): 19.8

TIME IN: 15:10

TIME OUT: 17:00

DATE IN: 11/27/2024

DATE OUT: 12/02/2024

| Lab SampleID | Bottle No. | Check CL | Initial PH | Final PH | Temp °C | Sam Vol. (mL) | D.O.1 Initial | D.O.2 Final | Depletion | BOD Result (mg/L) | Avg Result (mg/L) | Comment     |
|--------------|------------|----------|------------|----------|---------|---------------|---------------|-------------|-----------|-------------------|-------------------|-------------|
| LB133668BL   | 1          | No       | 6.69       | 7.22     | 20.40   | 300           | 9.50          | 9.48        | 0.02      | 0.02              | 0.02              | pH Adjusted |
| POLYSEED     | 1          |          |            |          |         | 10            | 9.47          | 6.23        | 3.24      | 0.65              | 0.67              |             |
| POLYSEED     | 2          |          |            |          |         | 15            | 9.44          | 4.23        | 5.21      | 0.69              |                   |             |
| POLYSEED     | 3          |          |            |          |         | 20            | 9.41          | 2.68        | 6.73      | 0.67              |                   |             |
| GGA          | 1          |          |            |          |         | 6             | 9.46          | 4.99        | 4.47      | 190               | 194               |             |
| GGA          | 2          |          |            |          |         | 6             | 9.42          | 4.80        | 4.62      | 197.5             |                   |             |
| GGA          | 3          |          |            |          |         | 6             | 9.40          | 4.84        | 4.56      | 194.5             |                   |             |
| P5006-18     | 1          | No       | 7.22       | 7.22     | 20.40   | 5             | 9.39          | 7.24        | 2.15      | 88.8              | 33.78             | pH Adjusted |
| P5006-18     | 2          |          |            |          |         | 20            | 9.36          | 6.92        | 2.44      | 26.55             |                   |             |
| P5006-18     | 3          |          |            |          |         | 50            | 9.27          | 6.65        | 2.62      | 11.7              |                   |             |
| P5006-18     | 4          |          |            |          |         | 150           | 9.03          | 4.33        | 4.7       | 8.06              |                   |             |

NOTE: 2ml POLYSEED added to GGA and all the Samples, but not in Blank.

NOTE (For, CBOD5): 0.16 g Nitrification Inhibitor added to GGA and all the Samples, but not in Blank.

WORKLIST(Hardcopy Internal Chain)

LB133668

WorkList Name : BOD5-11272024

WorkList ID : 185821

Department : Wet-Chemistry

Date : 11-27-2024 08:14:50

| Sample   | Customer Sample | Matrix | Test | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method   |
|----------|-----------------|--------|------|--------------|----------|-----------------------------|--------------|----------|
| P5006-18 | TW-WTS-02       | Water  | BOD5 | Cool 4 deg C | ENTA05   | L51                         | 11/25/2024   | SM5210 B |

Date/Time 11.27.2024 14:06  
Raw Sample Received by: NF(wc)  
Raw Sample Relinquished by: AP sn

Date/Time 11.27.2024 16:00  
Raw Sample Received by: AP sn  
Raw Sample Relinquished by: NF(wc)

LB133703

Test results

Aquakem 7.2AQ1

Page:

CHEMTECH CONSULTING GROUP INC  
284 Sheffield Street, Mountainside, NJ 07092

12/3/2024 10:05

Reviewed by : RM

Instrument ID : Konelab

Test: TKN-NH3

| Sample Id  | Result | Dil. 1 + | Response | Errors |
|------------|--------|----------|----------|--------|
| ICV1       | 4.693  | 0.0      | 0.609    |        |
| ICB1       | -0.056 | 0.0      | 0.032    |        |
| CCV1       | 5.047  | 0.0      | 0.651    |        |
| CCB1       | -0.054 | 0.0      | 0.032    |        |
| RL CHECK   | 0.427  | 0.0      | 0.091    |        |
| PB165319BL | -0.065 | 0.0      | 0.031    |        |
| PB165319BS | 4.635  | 0.0      | 0.601    |        |
| P5006-18   | 0.898  | 0.0      | 0.148    |        |
| CCV2       | 4.886  | 0.0      | 0.632    |        |
| CCB2       | -0.058 | 0.0      | 0.032    |        |

85% (Sc-150)

12/03/2024

RM

N 10  
Mean 2.035  
SD 2.4137  
CV% 118.59

Aquakem v. 7.2AQ1

Results from time period:

Tue Dec 03 09:08:33 2024

Tue Dec 03 10:04:15 2024

| Sample Id  | Sam/Ctr/c | Test short r | Test type | Result  | Result unit | Result date and time | Stat |
|------------|-----------|--------------|-----------|---------|-------------|----------------------|------|
| 0.0PPM     | A         | TKN-NH3      | P         | -0.054  | mg/l        | 12/3/2024 9:08:33    |      |
| 0.5PPM     | A         | TKN-NH3      | P         | 0.4668  | mg/l        | 12/3/2024 9:08:34    |      |
| 1.0PPM     | A         | TKN-NH3      | P         | 0.9924  | mg/l        | 12/3/2024 9:08:35    |      |
| 2.5PPM     | A         | TKN-NH3      | P         | 2.493   | mg/l        | 12/3/2024 9:08:36    |      |
| 5.0PPM     | A         | TKN-NH3      | P         | 5.0483  | mg/l        | 12/3/2024 9:08:37    |      |
| 6.7PPM     | A         | TKN-NH3      | P         | 6.887   | mg/l        | 12/3/2024 9:08:38    |      |
| 10.0PPM    | A         | TKN-NH3      | P         | 9.8331  | mg/l        | 12/3/2024 9:08:39    |      |
| ICV1       | S         | TKN-NH3      | P         | 4.6933  | mg/l        | 12/3/2024 9:54:33    |      |
| ICB1       | S         | TKN-NH3      | P         | -0.0559 | mg/l        | 12/3/2024 9:54:35    |      |
| CCV1       | S         | TKN-NH3      | P         | 5.0467  | mg/l        | 12/3/2024 9:54:37    |      |
| CCB1       | S         | TKN-NH3      | P         | -0.0538 | mg/l        | 12/3/2024 9:54:38    |      |
| RL CHECK   | S         | TKN-NH3      | P         | 0.4273  | mg/l        | 12/3/2024 9:54:41    |      |
| PB165319BL | S         | TKN-NH3      | P         | -0.0654 | mg/l        | 12/3/2024 9:54:42    |      |
| PB165319BS | S         | TKN-NH3      | P         | 4.6351  | mg/l        | 12/3/2024 10:04:07   |      |
| P5006-18   | S         | TKN-NH3      | P         | 0.8983  | mg/l        | 12/3/2024 10:04:08   |      |
| CCV2       | S         | TKN-NH3      | P         | 4.8863  | mg/l        | 12/3/2024 10:04:10   |      |
| CCB2       | S         | TKN-NH3      | P         | -0.0582 | mg/l        | 12/3/2024 10:04:13   |      |

=====  
Calibration results      Aquakem 7.2AQ1      Page:

CHEMTECH CONSULTING GROUP INC  
284 Sheffield Street, Mountainside, NJ 07092

12/3/2024 9:15      Reviewed by : RM      Instrument ID : Konelab

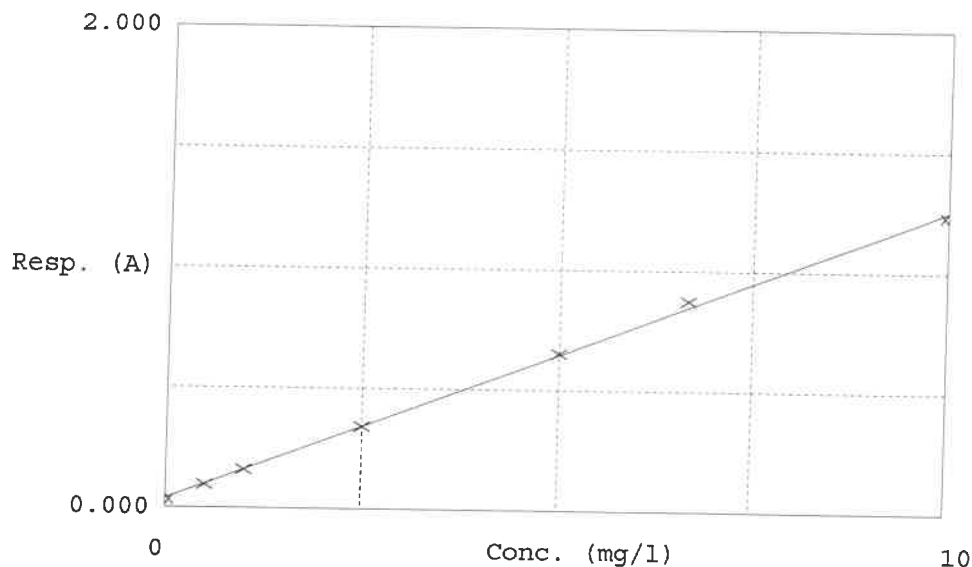
Test      TKN-NH3

Accepted      12/3/2024      9:15

Factor      8.241  
Bias      0.039

Coeff. of det.      0.999001

Errors



|   | Calibrator | Response | Calc. con. | Conc.   | <sup>Pl</sup><br>Errors |
|---|------------|----------|------------|---------|-------------------------|
| 1 | 0.00PPM    | 0.032    | -0.0540    | 0.0000  | -                       |
| 2 | TKN-10     | 0.096    | 0.4668     | 0.5000  | -6.6                    |
| 3 | TKN-10     | 0.159    | 0.9924     | 1.0000  | -0.8                    |
| 4 | TKN-10     | 0.342    | 2.4930     | 2.5000  | -0.3                    |
| 5 | TKN-10     | 0.652    | 5.0483     | 5.0000  | 1.0                     |
| 6 | TKN-10     | 0.875    | 6.8870     | 6.6667  | 2.8                     |
| 7 | TKN-10     | 1.232    | 9.8331     | 10.0000 | -1.7                    |

12/03/2024  
RM

SOP ID : MSM4500-N Org C-TKN-11

SDG No : N/A

Start Digest Date: 12/02/2024 Time : 09:15 Temp : 380 °C

Matrix : WATER

End Digest Date: 12/02/2024 Time : 10:45 Temp : 375 °C

Pipette ID : WC

Start Distillation Date: 12/02/2024 Time : 11:15 Temp : 150 °C

Balance ID : N/A

End Distillation Date: 12/02/2024 Time : 12:15 Temp : 160 °C

Hood ID : HOOD#2&3

Digestion tube ID : M5595

Block Thermometer ID : Therm#2(2179)

Block ID : WC-DIST-BLOCK-1

Filter paper ID : N/A

Prep Technician Signature: RM

Weigh By : N/A

pH Meter ID : N/A

Supervisor Signature: 12

| Standard Name | MLS USED | STD REF. # FROM LOG |
|---------------|----------|---------------------|
| TKN CAL STD   | 50.0ML   | WP110895            |
| TKN CCV STD   | 50.0ML   | WP110896            |
| TKN ICV STD   | 50.0ML   | WP110897            |
| TKN LCS STD   | 50.0ML   | WP110898            |
| N/A           | N/A      | N/A                 |

| Chemical Used           | ML/SAMPLE USED | Lot Number |
|-------------------------|----------------|------------|
| TKN DIGESTION FLUID     | 10.0ML         | WP108657   |
| TKN DISTILLATION BUFFER | 10.0ML         | WP109441   |
| H2SO4 0.04N             | 5.0ML          | WP110335   |
| pH Paper 0-14           | N/A            | W3140      |
| N/A                     | N/A            | N/A        |
| N/A                     | N/A            | N/A        |
| N/A                     | N/A            | N/A        |
| N/A                     | N/A            | N/A        |
| N/A                     | N/A            | N/A        |
| N/A                     | N/A            | N/A        |

Extraction Conformance/Non-Conformance Comments:

RL CHECK 10ML FROM WP110896, ALL GLASSWEAR ARE STEAMED OUT AND THERE WERE NO TRACE OF AMMONIA USING NESLER REAGENT WP108814

| Date / Time      | Prepped Sample Relinquished By/Location | Received By/Location |
|------------------|-----------------------------------------|----------------------|
| 12/02/2024 12:25 | RM CWC                                  | RM CWC               |
|                  | Preparation Group                       | Analysis Group       |

| Lab Sample ID | Client Sample ID | Initial Vol (ml) | Final Vol (ml) | pH | Sulfide | Oxidizing | Nitrate/ Nitrite | Comment                        | Prep Pos |
|---------------|------------------|------------------|----------------|----|---------|-----------|------------------|--------------------------------|----------|
| P5006-18      | TW-WTS-02        | 50               | 50             | <2 | N/A     | N/A       | N/A              | PH AFTER ADDING DIST BUFFER>11 | N/A      |
| PB165319BL    | PBW319           | 50               | 50             | <2 | N/A     | N/A       | N/A              | PH AFTER ADDING DIST BUFFER>11 | N/A      |
| PB165319BS    | LCS319           | 50               | 50             | <2 | N/A     | N/A       | N/A              | PH AFTER ADDING DIST BUFFER>11 | N/A      |

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : tkn 12-2

WorkList ID : 185883

Department : Distillation

Date : 12-02-2024 08:42:18

| Sample   | Customer Sample | Matrix | Test | Preservative         | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-----------------|--------|------|----------------------|----------|-----------------------------|--------------|--------------|
| P5006-18 | TW-WTS-02       | Water  | TKN  | Conc H2SO4 to pH < 2 | ENTA05   | L51                         | 11/25/2024   | SM4500 N Org |

Date/Time 12/02/2024 08:45  
 Raw Sample Received by: RM CWC  
 Raw Sample Relinquished by: JH WJC

Date/Time 12/02/2024 09:25  
 Raw Sample Received by: JH CWC  
 Raw Sample Relinquished by: RM CWC

**Instrument ID:** SPECTROPHOTOMETER-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133640**

|                  |                                                                                           |              |                       |
|------------------|-------------------------------------------------------------------------------------------|--------------|-----------------------|
| Review By        | rubina                                                                                    | Review On    | 11/26/2024 5:01:10 PM |
| Supervise By     | Iwona                                                                                     | Supervise On | 11/26/2024 5:01:45 PM |
| SubDirectory     | LB133640                                                                                  | Test         | Hexavalent Chromium   |
| <b>STD. NAME</b> | <b>STD REF.#</b>                                                                          |              |                       |
| ICAL Standard    | N/A                                                                                       |              |                       |
| ICV Standard     | N/A                                                                                       |              |                       |
| CCV Standard     | N/A                                                                                       |              |                       |
| ICSA Standard    | N/A                                                                                       |              |                       |
| CRI Standard     | N/A                                                                                       |              |                       |
| LCS Standard     | N/A                                                                                       |              |                       |
| Chk Standard     | WP110886,WP110885,WP110883,WP110882,WP110866,WP110380,WP110884,WP110889,WP110887,WP110888 |              |                       |

| Sr# | SampleId   | ClientID   | QcType | Date           | Comment | Operator | Status |
|-----|------------|------------|--------|----------------|---------|----------|--------|
| 1   | CAL1       | CAL1       | CAL    | 11/26/24 16:20 |         | rubina   | OK     |
| 2   | CAL2       | CAL2       | CAL    | 11/26/24 16:21 |         | rubina   | OK     |
| 3   | CAL3       | CAL3       | CAL    | 11/26/24 16:22 |         | rubina   | OK     |
| 4   | CAL4       | CAL4       | CAL    | 11/26/24 16:23 |         | rubina   | OK     |
| 5   | CAL5       | CAL5       | CAL    | 11/26/24 16:24 |         | rubina   | OK     |
| 6   | CAL6       | CAL6       | CAL    | 11/26/24 16:25 |         | rubina   | OK     |
| 7   | CAL7       | CAL7       | CAL    | 11/26/24 16:26 |         | rubina   | OK     |
| 8   | ICV        | ICV        | ICV    | 11/26/24 16:27 |         | rubina   | OK     |
| 9   | ICB        | ICB        | ICB    | 11/26/24 16:28 |         | rubina   | OK     |
| 10  | CCV1       | CCV1       | CCV    | 11/26/24 16:29 |         | rubina   | OK     |
| 11  | CCB1       | CCB1       | CCB    | 11/26/24 16:30 |         | rubina   | OK     |
| 12  | RL Check   | RL Check   | SAM    | 11/26/24 16:31 |         | rubina   | OK     |
| 13  | Ib133640BL | Ib133640BL | MB     | 11/26/24 16:32 |         | rubina   | OK     |
| 14  | Ib133640BS | Ib133640BS | LCS    | 11/26/24 16:33 |         | rubina   | OK     |
| 15  | P5006-18   | TW-WTS-02  | SAM    | 11/26/24 16:34 |         | rubina   | OK     |
| 16  | CCV2       | CCV2       | CCV    | 11/26/24 16:35 |         | rubina   | OK     |
| 17  | CCB2       | CCB2       | CCB    | 11/26/24 16:36 |         | rubina   | OK     |

**Instrument ID:** IC-2

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133643**

|                  |                                                                |              |                       |
|------------------|----------------------------------------------------------------|--------------|-----------------------|
| Review By        | Niha                                                           | Review On    | 11/27/2024 3:07:58 PM |
| Supervise By     | Iwona                                                          | Supervise On | 11/27/2024 3:51:22 PM |
| SubDirectory     | LB133643                                                       | Test         | Anions                |
| <b>STD. NAME</b> | <b>STD REF.#</b>                                               |              |                       |
| ICAL Standard    | WP110752,WP110753,WP110754,WP110755,WP110756,WP110757,WP110758 |              |                       |
| ICV Standard     | WP110759                                                       |              |                       |
| CCV Standard     | WP110880                                                       |              |                       |
| ICSA Standard    | N/A                                                            |              |                       |
| CRI Standard     | N/A                                                            |              |                       |
| LCS Standard     | WP110881                                                       |              |                       |
| Chk Standard     | WP110760,WP110761                                              |              |                       |

| Sr# | SampleId    | ClientID     | QcType | Date           | Comment                      | Operator | Status   |
|-----|-------------|--------------|--------|----------------|------------------------------|----------|----------|
| 1   | STD1        | STD1         | CAL1   | 11/18/24 11:24 | All standards, samples, and  | NF/IZ    | OK       |
| 2   | STD2        | STD2         | CAL2   | 11/18/24 11:46 | QC are filtered through      | NF/IZ    | OK       |
| 3   | STD3        | STD3         | CAL3   | 11/18/24 12:07 | 0.45um, filter lot W2865     | NF/IZ    | OK       |
| 4   | STD4        | STD4         | CAL4   | 11/18/24 12:29 |                              | NF/IZ    | OK       |
| 5   | STD5        | STD5         | CAL5   | 11/18/24 12:50 |                              | NF/IZ    | OK       |
| 6   | STD6        | STD6         | CAL6   | 11/18/24 13:11 |                              | NF/IZ    | OK       |
| 7   | STD7        | STD7         | CAL7   | 11/18/24 13:33 |                              | NF/IZ    | OK       |
| 8   | ICV1        | ICV1         | ICV    | 11/18/24 13:54 |                              | NF/IZ    | OK       |
| 9   | ICB1        | ICB1         | ICB    | 11/18/24 14:16 |                              | NF/IZ    | OK       |
| 10  | CCV1        | CCV1         | CCV    | 11/26/24 12:56 |                              | NF/IZ    | OK       |
| 11  | CCB1        | CCB1         | CCB    | 11/26/24 13:17 |                              | NF/IZ    | OK       |
| 12  | LB133643BLW | LB133643BLW  | MB     | 11/26/24 13:38 |                              | NF/IZ    | OK       |
| 13  | LB133643BSW | LB133643BSW  | LCS    | 11/26/24 14:00 |                              | NF/IZ    | OK       |
| 14  | P5006-18    | TW-WTS-02    | SAM    | 11/26/24 15:02 | Cl,No3 high                  | NF/IZ    | Dilution |
| 15  | P5006-18MS  | TW-WTS-02MS  | MS     | 11/26/24 15:23 | 9.5ml of sample, 0.5mL W3091 | NF/IZ    | OK       |
| 16  | P5006-18MSD | TW-WTS-02MSD | MSD    | 11/26/24 15:45 | 9.5ml of sample, 0.5mL W3091 | NF/IZ    | OK       |
| 17  | P5006-18DL  | TW-WTS-02DL  | SAM    | 11/26/24 16:07 | 2X for Cl,No3,Still Cl high  | NF/IZ    | Dilution |
| 18  | P5006-18DL2 | TW-WTS-02DL2 | SAM    | 11/26/24 16:28 | 50X for Cl                   | NF/IZ    | Confirms |

Instrument ID: IC-2

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133643**

| Review By     | Niha                                                           | Review On    | 11/27/2024 3:07:58 PM |
|---------------|----------------------------------------------------------------|--------------|-----------------------|
| Supervise By  | Iwona                                                          | Supervise On | 11/27/2024 3:51:22 PM |
| SubDirectory  | LB133643                                                       | Test         | Anions                |
| STD. NAME     | STD REF.#                                                      |              |                       |
| ICAL Standard | WP110752,WP110753,WP110754,WP110755,WP110756,WP110757,WP110758 |              |                       |
| ICV Standard  | WP110759                                                       |              |                       |
| CCV Standard  | WP110880                                                       |              |                       |
| ICSA Standard | N/A                                                            |              |                       |
| CRI Standard  | N/A                                                            |              |                       |
| LCS Standard  | WP110881                                                       |              |                       |
| Chk Standard  | WP110760,WP110761                                              |              |                       |

|    |      |      |     |                |  |       |    |
|----|------|------|-----|----------------|--|-------|----|
| 19 | CCV2 | CCV2 | CCV | 11/26/24 16:50 |  | NF/IZ | OK |
| 20 | CCB2 | CCB2 | CCB | 11/26/24 17:11 |  | NF/IZ | OK |

**Instrument ID:** WC PH METER-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133647**

|                  |                                     |              |                       |
|------------------|-------------------------------------|--------------|-----------------------|
| Review By        | jignesh                             | Review On    | 11/26/2024 4:28:50 PM |
| Supervise By     | Iwona                               | Supervise On | 11/27/2024 9:31:56 AM |
| SubDirectory     | LB133647                            | Test         | pH                    |
| <b>STD. NAME</b> | <b>STD REF.#</b>                    |              |                       |
| ICAL Standard    | N/A                                 |              |                       |
| ICV Standard     | N/A                                 |              |                       |
| CCV Standard     | N/A                                 |              |                       |
| ICSA Standard    | N/A                                 |              |                       |
| CRI Standard     | N/A                                 |              |                       |
| LCS Standard     | N/A                                 |              |                       |
| Chk Standard     | W3107,W3093,W3094,W3071,W3005,W3072 |              |                       |

| Sr# | SampleId    | ClientID     | QcType | Date           | Comment | Operator | Status |
|-----|-------------|--------------|--------|----------------|---------|----------|--------|
| 1   | CAL1        | CAL1         | CAL    | 11/26/24 15:35 |         | jignesh  | OK     |
| 2   | CAL2        | CAL2         | CAL    | 11/26/24 15:36 |         | jignesh  | OK     |
| 3   | CAL3        | CAL3         | CAL    | 11/26/24 15:38 |         | jignesh  | OK     |
| 4   | ICV         | ICV          | ICV    | 11/26/24 15:40 |         | jignesh  | OK     |
| 5   | CCV1        | CCV1         | CCV    | 11/26/24 15:44 |         | jignesh  | OK     |
| 6   | P5006-18    | TW-WTS-02    | SAM    | 11/26/24 15:57 |         | jignesh  | OK     |
| 7   | P5006-18DUP | TW-WTS-02DUP | DUP    | 11/26/24 15:58 |         | jignesh  | OK     |
| 8   | P5013-02    | SPILL-1125-B | SAM    | 11/26/24 16:10 |         | jignesh  | OK     |
| 9   | CCV2        | CCV2         | CCV    | 11/26/24 16:15 |         | jignesh  | OK     |

**Instrument ID:** IGN-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133649**

|                  |                  |              |                      |
|------------------|------------------|--------------|----------------------|
| Review By        | rubina           | Review On    | 12/2/2024 4:29:27 PM |
| Supervise By     | Iwona            | Supervise On | 12/2/2024 4:38:48 PM |
| SubDirectory     | LB133649         | Test         | Flash Point          |
| <b>STD. NAME</b> | <b>STD REF.#</b> |              |                      |
| ICAL Standard    | N/A              |              |                      |
| ICV Standard     | N/A              |              |                      |
| CCV Standard     | N/A              |              |                      |
| ICSA Standard    | N/A              |              |                      |
| CRI Standard     | N/A              |              |                      |
| LCS Standard     | N/A              |              |                      |
| Chk Standard     | W3088            |              |                      |

| Sr# | SampleId    | ClientID     | QcType | Date           | Comment | Operator | Status |
|-----|-------------|--------------|--------|----------------|---------|----------|--------|
| 1   | ICV         | ICV          | ICV    | 12/02/24 09:35 |         | rubina   | OK     |
| 2   | P4972-01    | 111524-A     | SAM    | 12/02/24 10:05 |         | rubina   | OK     |
| 3   | P4972-02    | 111524-B     | SAM    | 12/02/24 10:35 |         | rubina   | OK     |
| 4   | P4972-03    | 912-A        | SAM    | 12/02/24 12:10 |         | rubina   | OK     |
| 5   | P4972-05    | 628-F        | SAM    | 12/02/24 12:40 |         | rubina   | OK     |
| 6   | P5006-18    | TW-WTS-02    | SAM    | 12/02/24 13:10 |         | rubina   | OK     |
| 7   | P5006-18DUP | TW-WTS-02DUP | DUP    | 12/02/24 13:40 |         | rubina   | OK     |

**Instrument ID:** WC SC-3

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133654**

|              |          |              |                        |
|--------------|----------|--------------|------------------------|
| Review By    | Niha     | Review On    | 11/27/2024 12:13:33 PM |
| Supervise By | Iwona    | Supervise On | 11/27/2024 12:21:24 PM |
| SubDirectory | LB133654 | Test         | TS                     |

| STD. NAME     | STD REF.# |
|---------------|-----------|
| ICAL Standard | N/A       |
| ICV Standard  | N/A       |
| CCV Standard  | N/A       |
| ICSA Standard | N/A       |
| CRI Standard  | N/A       |
| LCS Standard  | N/A       |
| Chk Standard  | N/A       |

| Sr# | SampleID   | ClientID   | QcType | Date           | Comment | Operator | Status |
|-----|------------|------------|--------|----------------|---------|----------|--------|
| 1   | LB133654BL | LB133654BL | MB     | 11/26/24 11:00 |         | Niha     | OK     |
| 2   | P5006-18   | TW-WTS-02  | SAM    | 11/26/24 11:00 |         | Niha     | OK     |

**Instrument ID:** WC SC-3

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133658**

|                  |                  |              |                        |
|------------------|------------------|--------------|------------------------|
| Review By        | Niha             | Review On    | 11/27/2024 12:14:24 PM |
| Supervise By     | Iwona            | Supervise On | 11/27/2024 12:21:15 PM |
| SubDirectory     | LB133658         | Test         | TSS                    |
| <b>STD. NAME</b> | <b>STD REF.#</b> |              |                        |
| ICAL Standard    | N/A              |              |                        |
| ICV Standard     | N/A              |              |                        |
| CCV Standard     | N/A              |              |                        |
| ICSA Standard    | N/A              |              |                        |
| CRI Standard     | N/A              |              |                        |
| LCS Standard     | N/A              |              |                        |
| Chk Standard     | N/A              |              |                        |

| Sr# | SampleId    | ClientID   | QcType | Date           | Comment | Operator | Status |
|-----|-------------|------------|--------|----------------|---------|----------|--------|
| 1   | LB133658BL  | LB133658BL | MB     | 11/27/24 08:30 |         | Niha     | OK     |
| 2   | LB133658BS  | LB133658BS | LCS    | 11/27/24 08:30 |         | Niha     | OK     |
| 3   | P5006-18    | TW-WTS-02  | SAM    | 11/27/24 08:30 |         | Niha     | OK     |
| 4   | P5018-01    | 14B-1      | SAM    | 11/27/24 08:30 |         | Niha     | OK     |
| 5   | P5018-02    | 14B-2      | SAM    | 11/27/24 08:30 |         | Niha     | OK     |
| 6   | P5018-03    | 14B-3      | SAM    | 11/27/24 08:30 |         | Niha     | OK     |
| 7   | P5018-04    | 14B-4      | SAM    | 11/27/24 08:30 |         | Niha     | OK     |
| 8   | P5018-04DUP | 14B-4DUP   | DUP    | 11/27/24 08:30 |         | Niha     | OK     |

**Instrument ID:** DO METER

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133668**

|                  |                                                                      |              |                      |
|------------------|----------------------------------------------------------------------|--------------|----------------------|
| Review By        | Niha                                                                 | Review On    | 12/2/2024 4:24:01 PM |
| Supervise By     | Iwona                                                                | Supervise On | 12/2/2024 4:24:52 PM |
| SubDirectory     | LB133668                                                             | Test         | BOD5                 |
| <b>STD. NAME</b> | <b>STD REF.#</b>                                                     |              |                      |
| ICAL Standard    | N/A                                                                  |              |                      |
| ICV Standard     | N/A                                                                  |              |                      |
| CCV Standard     | N/A                                                                  |              |                      |
| ICSA Standard    | N/A                                                                  |              |                      |
| CRI Standard     | N/A                                                                  |              |                      |
| LCS Standard     | N/A                                                                  |              |                      |
| Chk Standard     | WP110892,W3149,WP110386,W3103,W3109,W3105,WP110894,WP110893,WP108662 |              |                      |

| Sr# | SampleId   | ClientID   | QcType | Date           | Comment | Operator | Status |
|-----|------------|------------|--------|----------------|---------|----------|--------|
| 1   | LB133668BL | LB133668BL | MB     | 11/27/24 15:10 |         | Iwona    | OK     |
| 2   | LB133668BS | LB133668BS | LCS    | 11/27/24 15:10 |         | Iwona    | OK     |
| 3   | P5006-18   | TW-WTS-02  | SAM    | 11/27/24 15:10 |         | Iwona    | OK     |

**Instrument ID:** KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133703**

|                  |                                     |              |                      |
|------------------|-------------------------------------|--------------|----------------------|
| Review By        | rubina                              | Review On    | 12/4/2024 8:38:41 AM |
| Supervise By     |                                     | Supervise On |                      |
| SubDirectory     | LB133703                            | Test         | TKN                  |
| <b>STD. NAME</b> | <b>STD REF.#</b>                    |              |                      |
| ICAL Standard    | WP110895                            |              |                      |
| ICV Standard     | WP110897                            |              |                      |
| CCV Standard     | WP110896                            |              |                      |
| ICSA Standard    | N/A                                 |              |                      |
| CRI Standard     | N/A                                 |              |                      |
| LCS Standard     | WP110898                            |              |                      |
| Chk Standard     | WP110416,WP110019,WP108709,WP108840 |              |                      |

| Sr# | SampleId   | ClientID   | QcType | Date           | Comment | Operator | Status |
|-----|------------|------------|--------|----------------|---------|----------|--------|
| 1   | 0.0PPM     | 0.0PPM     | CAL1   | 12/03/24 09:08 |         | rubina   | OK     |
| 2   | 0.5PPM     | 0.5PPM     | CAL2   | 12/03/24 09:08 |         | rubina   | OK     |
| 3   | 1.0PPM     | 1.0PPM     | CAL3   | 12/03/24 09:08 |         | rubina   | OK     |
| 4   | 2.5PPM     | 2.5PPM     | CAL4   | 12/03/24 09:08 |         | rubina   | OK     |
| 5   | 5.0PPM     | 5.0PPM     | CAL5   | 12/03/24 09:08 |         | rubina   | OK     |
| 6   | 6.7PPM     | 6.7PPM     | CAL6   | 12/03/24 09:08 |         | rubina   | OK     |
| 7   | 10.0PPM    | 10.0PPM    | CAL7   | 12/03/24 09:08 |         | rubina   | OK     |
| 8   | ICV1       | ICV1       | ICV    | 12/03/24 09:54 |         | rubina   | OK     |
| 9   | ICB1       | ICB1       | ICB    | 12/03/24 09:54 |         | rubina   | OK     |
| 10  | CCV1       | CCV1       | CCV    | 12/03/24 09:54 |         | rubina   | OK     |
| 11  | CCB1       | CCB1       | CCB    | 12/03/24 09:54 |         | rubina   | OK     |
| 12  | RL         | RL         | SAM    | 12/03/24 09:54 |         | rubina   | OK     |
| 13  | PB165319BL | PB165319BL | MB     | 12/03/24 09:54 |         | rubina   | OK     |
| 14  | PB165319BS | PB165319BS | LCS    | 12/03/24 10:04 |         | rubina   | OK     |
| 15  | P5006-18   | TW-WTS-02  | SAM    | 12/03/24 10:04 |         | rubina   | OK     |
| 16  | CCV2       | CCV2       | CCV    | 12/03/24 10:04 |         | rubina   | OK     |
| 17  | CCB2       | CCB2       | CCB    | 12/03/24 10:04 |         | rubina   | OK     |

## Prep Standard - Chemical Standard Summary

**Order ID :** P5006

**Test :** Anions Group4,BOD5,Flash Point,Hexavalent Chromium,pH,TKN,Total Nitrogen,TS,TSS

**Prepbatch ID :** PB165319,

**Sequence ID/Qc Batch ID:** LB133640,LB133643,LB133647,LB133649,LB133654,LB133658,LB133668,LB133703,LB133741,

**Standard ID :**

WP108657,WP108658,WP108659,WP108662,WP108709,WP108840,WP109441,WP110019,WP110149,WP110150,W  
P110259,WP110335,WP110380,WP110386,WP110416,WP110752,WP110753,WP110754,WP110755,WP110756,WP11  
0757,WP110758,WP110759,WP110760,WP110761,WP110866,WP110877,WP110880,WP110881,WP110882,WP11088  
3,WP110884,WP110885,WP110886,WP110887,WP110888,WP110889,WP110892,WP110893,WP110894,WP110895,  
WP110896,WP110897,WP110898,

**Chemical ID :**

E3830,M5673,W1992,W1993,W2647,W2651,W2652,W2653,W2654,W2666,W2697,W2858,W2979,W2983,W3005,W3  
030,W3058,W3062,W3063,W3071,W3072,W3088,W3093,W3094,W3103,W3105,W3107,W3109,W3112,W3113,W3132  
,W3136,W3140,W3143,W3144,W3149,



| <u>Recipe ID</u>   | <u>NAME</u>                                                                                                               | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>            | <u>PipetteID</u> | <u>Supervised By</u>       |
|--------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------------|
| 619                | TKN digestion solution                                                                                                    | <a href="#">WP108657</a> | 07/09/2024       | 01/09/2025             | Rubina Mughal      | WETCHEM_SCALE_4 (WC SC-4) | None             | Iwona Zarych<br>07/09/2024 |
| <b><u>FROM</u></b> | 134.00000gram of W2983 + 134.00000ml of M5673 + 7.30000gram of W2697 + 725.00000ml of W3112 = Final Quantity: 1000.000 ml |                          |                  |                        |                    |                           |                  |                            |

| <u>Recipe ID</u>                                                                              | <u>NAME</u>                           | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                   | <u>PipetteID</u> | <u>Supervised By</u>           |
|-----------------------------------------------------------------------------------------------|---------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------------------------|------------------|--------------------------------|
| 1993                                                                                          | HEXAVALENTCHROMIUM STOCK STD 1, 50PPM | <a href="#">WP108658</a> | 07/09/2024       | 01/09/2025             | Rubina Mughal      | WETCHEM_S<br>CALE_5 (WC<br>SC-5) | None             | Iwona Zarych<br><br>07/09/2024 |
| <b><u>FROM</u></b> 0.14140gram of W2651 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml |                                       |                          |                  |                        |                    |                                  |                  |                                |



| <u>Recipe ID</u>                                                                              | <u>NAME</u>                           | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                   | <u>PipetteID</u> | <u>Supervised By</u>           |
|-----------------------------------------------------------------------------------------------|---------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------------------------|------------------|--------------------------------|
| 1994                                                                                          | HEXAVALENTCHROMIUM STOCK STD 2, 50PPM | <a href="#">WP108659</a> | 07/09/2024       | 01/09/2025             | Rubina Mughal      | WETCHEM_S<br>CALE_5 (WC<br>SC-5) | None             | Iwona Zarych<br><br>07/09/2024 |
| <b><u>FROM</u></b> 0.14140gram of W2652 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml |                                       |                          |                  |                        |                    |                                  |                  |                                |

| <u>Recipe ID</u>                                                                           | <u>NAME</u>          | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                   | <u>PipetteID</u> | <u>Supervised By</u>           |
|--------------------------------------------------------------------------------------------|----------------------|--------------------------|------------------|------------------------|--------------------|----------------------------------|------------------|--------------------------------|
| 1571                                                                                       | Sodium hydroxide, 1N | <a href="#">WP108662</a> | 07/09/2024       | 01/09/2025             | Rubina Mughal      | WETCHEM_S<br>CALE_5 (WC<br>SC-5) | None             | Iwona Zarych<br><br>07/11/2024 |
| <b><u>FROM</u></b> 4.00000gram of W3113 + 96.00000ml of W3112 = Final Quantity: 100.000 ml |                      |                          |                  |                        |                    |                                  |                  |                                |

| <u>Recipe ID</u>                                                                                                  | <u>NAME</u>                | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>          | <u>PipetteID</u> | <u>Supervised By</u>     |
|-------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------|------------------|------------------------|--------------------|-------------------------|------------------|--------------------------|
| 290                                                                                                               | Phenol reagent for Ammonia | <a href="#">WP108709</a> | 07/11/2024       | 01/11/2025             | Rubina Mughal      | WETCHEM_SCALE_5 (WCS-5) | None             | Mohan Bera<br>07/17/2024 |
| <b><u>FROM</u></b> 3.20000gram of W3113 + 8.30000gram of W2858 + 88.80000ml of W3112 = Final Quantity: 100.000 ml |                            |                          |                  |                        |                    |                         |                  |                          |

| <u>Recipe ID</u>                                                                                                     | <u>NAME</u>             | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>          | <u>PipetteID</u> | <u>Supervised By</u>       |
|----------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------|------------------|------------------------|--------------------|-------------------------|------------------|----------------------------|
| 635                                                                                                                  | EDTA BUFFER FOR AMMONIA | <a href="#">WP108840</a> | 07/26/2024       | 01/26/2025             | Rubina Mughal      | WETCHEM_SCALE_5 (WCS-5) | None             | Iwona Zarych<br>07/26/2024 |
| <b><u>FROM</u></b> 5.50000gram of W3113 + 50.00000gram of W3132 + 950.00000ml of W3112 = Final Quantity: 1000.000 ml |                         |                          |                  |                        |                    |                         |                  |                            |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>           | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>            | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|-----------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------|
| 1338             | TKN DISTILLING BUFFER | <a href="#">WP109441</a> | 08/29/2024       | 02/28/2025             | Rubina Mughal      | WETCHEM_SCALE_5 (WC SC-5) | None             | Iwona Zarych         |
|                  |                       |                          |                  |                        |                    |                           |                  | 08/30/2024           |

**FROM** 0.47500L of W3112 + 25.00000gram of W3136 + 500.00000gram of W3113 = Final Quantity: 1.000 L

| <u>Recipe ID</u> | <u>NAME</u>                     | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|---------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 289              | Sodium Hypochlorite for Ammonia | <a href="#">WP110019</a> | 10/02/2024       | 01/31/2025             | Rubina Mughal      | None           | None             | Iwona Zarych         |
|                  |                                 |                          |                  |                        |                    |                |                  | 10/04/2024           |

**FROM** 50.00000ml of W3112 + 50.00000ml of W3143 = Final Quantity: 100.000 ml



| <u>Recipe ID</u>                                                                             | <u>NAME</u>                   | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>          | <u>PipetteID</u> | <u>Supervised By</u>       |
|----------------------------------------------------------------------------------------------|-------------------------------|--------------------------|------------------|------------------------|--------------------|-------------------------|------------------|----------------------------|
| 153                                                                                          | Ammonia Stock Std. (1000 ppm) | <a href="#">WP110149</a> | 10/11/2024       | 04/08/2025             | Rubina Mughal      | WETCHEM_SCALE_5 (WCS-5) | None             | Iwona Zarych<br>10/14/2024 |
| <b><u>FROM</u></b> 3.81900gram of W1993 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml |                               |                          |                  |                        |                    |                         |                  |                            |

| <u>Recipe ID</u>                                                                             | <u>NAME</u>                      | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                   | <u>PipetteID</u> | <u>Supervised By</u>           |
|----------------------------------------------------------------------------------------------|----------------------------------|--------------------------|------------------|------------------------|--------------------|----------------------------------|------------------|--------------------------------|
| 1895                                                                                         | Ammonia Stock Std,<br>1000PPM-SS | <a href="#">WP110150</a> | 10/11/2024       | 04/08/2025             | Rubina Mughal      | WETCHEM_S<br>CALE_5 (WC<br>SC-5) | None             | Iwona Zarych<br><br>10/14/2024 |
| <b><u>FROM</u></b> 3.81900gram of W1992 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml |                                  |                          |                  |                        |                    |                                  |                  |                                |



| <u>Recipe ID</u> | <u>NAME</u>                                                                                       | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                   | <u>PipetteID</u> | <u>Supervised By</u>             |
|------------------|---------------------------------------------------------------------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------------------------|------------------|----------------------------------|
| 4035             | IC ELUENT CONCENTRATE FOR IC-1                                                                    | <a href="#">WP110259</a> | 10/16/2024       | 04/16/2025             | Iwona Zarych       | WETCHEM_S<br>CALE_5 (WC<br>SC-5) | None             | Jignesh Parikh<br><br>10/17/2024 |
| <u>FROM</u>      | 2.10000gram of W2647 + 84.75000gram of W3058 + 913.15000ml of W3112 = Final Quantity: 1000.000 ml |                          |                  |                        |                    |                                  |                  |                                  |

| <u>Recipe ID</u>                                                                    | <u>NAME</u>  | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>       |
|-------------------------------------------------------------------------------------|--------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 1597                                                                                | 0.04 N H2SO4 | <a href="#">WP110335</a> | 10/22/2024       | 04/22/2025             | Rubina Mughal      | None           | WETCHEM_FIPETTE_3<br>(WC) | Iwona Zarych<br>10/22/2024 |
| <b>FROM</b> 1.00000ml of M5673 + 999.00000ml of W3112 = Final Quantity: 1000.000 ml |              |                          |                  |                        |                    |                |                           |                            |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>      | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 126              | 5N sulfuric acid | <a href="#">WP110380</a> | 10/24/2024       | 04/24/2025             | Rubina Mughal      | None           | None             | Iwona Zarych         |
|                  |                  |                          |                  |                        |                    |                |                  | 10/24/2024           |

**FROM** 140.00000ml of M5673 + 860.00000ml of W3112 = Final Quantity: 1.000 L

| <u>Recipe ID</u> | <u>NAME</u>       | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>  | <u>Supervised By</u> |
|------------------|-------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------|----------------------|
| 1841             | Sulfuric Acid, 1N | <a href="#">WP110386</a> | 10/24/2024       | 04/24/2025             | Rubina Mughal      | None           | WETCHEM_FIPETTE_3 | Iwona Zarych         |
|                  |                   |                          |                  |                        |                    |                | (WC)              | 10/24/2024           |

**FROM** 2.80000ml of M5673 + 97.20000ml of W3112 = Final Quantity: 100.000 ml



| <u>Recipe ID</u>                                                                           | <u>NAME</u>                          | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>            | <u>PipetteID</u> | <u>Supervised By</u>       |
|--------------------------------------------------------------------------------------------|--------------------------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------------|
| 740                                                                                        | sodium nitroferricyanide for ammonia | <a href="#">WP110416</a> | 10/25/2024       | 04/25/2025             | Rubina Mughal      | WETCHEM_SCALE_5 (WC SC-5) | None             | Iwona Zarych<br>10/25/2024 |
| <b><u>FROM</u></b> 0.05000gram of W2666 + 99.95000ml of W3112 = Final Quantity: 100.000 ml |                                      |                          |                  |                        |                    |                           |                  |                            |

| <u>Recipe ID</u>                                                   | <u>NAME</u>                            | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>       |
|--------------------------------------------------------------------|----------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------|
| 2487                                                               | Anions 300/9056 calibration standard 1 | <a href="#">WP110752</a> | 11/18/2024       | 11/19/2024             | Niha Farheen Shaik | None           | None             | Iwona Zarych<br>11/19/2024 |
| <b><u>FROM</u></b> 10.00000ml of W3112 = Final Quantity: 10.000 ml |                                        |                          |                  |                        |                    |                |                  |                            |



| <u>Recipe ID</u>                                                                       | <u>NAME</u>                            | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>       |
|----------------------------------------------------------------------------------------|----------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 24                                                                                     | Anions 300/9056 calibration standard 2 | <a href="#">WP110753</a> | 11/18/2024       | 11/19/2024             | Niha Farheen Shaik | None           | WETCHEM_FIPETTE_3<br>(WC) | Iwona Zarych<br>11/19/2024 |
| <b><u>FROM</u></b> 0.20000ml of W3063 + 9.80000ml of W3112 = Final Quantity: 10.000 ml |                                        |                          |                  |                        |                    |                |                           |                            |

| <u>Recipe ID</u>                                                                       | <u>NAME</u>                            | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>           |
|----------------------------------------------------------------------------------------|----------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|--------------------------------|
| 25                                                                                     | Anions 300/9056 calibration standard 3 | <a href="#">WP110754</a> | 11/18/2024       | 11/19/2024             | Niha Farheen Shaik | None           | WETCHEM_FIPETTE_3<br>(WC) | Iwona Zarych<br><br>11/19/2024 |
| <b><u>FROM</u></b> 0.40000ml of W3063 + 9.60000ml of W3112 = Final Quantity: 10.000 ml |                                        |                          |                  |                        |                    |                |                           |                                |



| <u>Recipe ID</u>                                                                       | <u>NAME</u>                            | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>       |
|----------------------------------------------------------------------------------------|----------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 26                                                                                     | Anions 300/9056 calibration standard 4 | <a href="#">WP110755</a> | 11/18/2024       | 11/19/2024             | Niha Farheen Shaik | None           | WETCHEM_FIPETTE_3<br>(WC) | Iwona Zarych<br>11/19/2024 |
| <b><u>FROM</u></b> 0.50000ml of W3063 + 9.50000ml of W3112 = Final Quantity: 10.000 ml |                                        |                          |                  |                        |                    |                |                           |                            |

| <u>Recipe ID</u>                                                                        | <u>NAME</u>                                | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>       |
|-----------------------------------------------------------------------------------------|--------------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------|
| 3680                                                                                    | Anions 300/9056 calibration standard 5-CCV | <a href="#">WP110756</a> | 11/18/2024       | 11/19/2024             | Niha Farheen Shaik | None           | None             | Iwona Zarych<br>11/19/2024 |
| <b><u>FROM</u></b> 45.00000ml of W3112 + 5.00000ml of W3063 = Final Quantity: 50.000 ml |                                            |                          |                  |                        |                    |                |                  |                            |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                            | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>       |
|------------------|----------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------|
| 3679             | Anions 300/9056 calibration standard 6 | <a href="#">WP110757</a> | 11/18/2024       | 11/19/2024             | Niha Farheen Shaik | None           | None             | Iwona Zarych<br>11/19/2024 |

**FROM** 2.00000ml of W3063 + 8.00000ml of W3112 = Final Quantity: 10.000 ml

| <u>Recipe ID</u> | <u>NAME</u>                            | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>       |
|------------------|----------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------|
| 3681             | Anions 300/9056 calibration standard 7 | <a href="#">WP110758</a> | 11/18/2024       | 11/19/2024             | Niha Farheen Shaik | None           | None             | Iwona Zarych<br>11/19/2024 |

**FROM** 2.50000ml of W3063 + 7.50000ml of W3112 = Final Quantity: 10.000 ml

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                 | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>       |
|------------------|-----------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------|
| 3233             | Anions 300/9056 ICV-LCS std | <a href="#">WP110759</a> | 11/18/2024       | 11/19/2024             | Niha Farheen Shaik | None           | None             | Iwona Zarych<br>11/19/2024 |

**FROM** 45.00000ml of W3112 + 5.00000ml of W3062 = Final Quantity: 50.000 ml

| <u>Recipe ID</u> | <u>NAME</u>        | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>       |
|------------------|--------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------|
| 4036             | IC ELUENT FOR IC-1 | <a href="#">WP110760</a> | 11/18/2024       | 12/18/2024             | Niha Farheen Shaik | None           | None             | Iwona Zarych<br>11/19/2024 |

**FROM** 1980.00000ml of W3112 + 20.00000ml of WP110259 = Final Quantity: 2000.000 ml

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>       | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|-------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 4037             | IC H2SO4 FOR IC-1 | <a href="#">WP110761</a> | 11/18/2024       | 12/18/2024             | Niha Farheen Shaik | None           | None             | Iwona Zarych         |
|                  |                   |                          |                  |                        |                    |                |                  | 11/19/2024           |

**FROM** 5.60000ml of M5673 + 994.40000ml of W3112 = Final Quantity: 1000.000 ml

| <u>Recipe ID</u> | <u>NAME</u>                       | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>            | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|-----------------------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------|
| 114              | hexavalent chromium color reagent | <a href="#">WP110866</a> | 11/25/2024       | 12/02/2024             | Rubina Mughal      | WETCHEM_SCALE_5 (WC SC-5) | None             | Iwona Zarych         |
|                  |                                   |                          |                  |                        |                    |                           |                  | 11/25/2024           |

**FROM** 0.25000gram of W2979 + 50.00000ml of E3830 = Final Quantity: 50.000 ml

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                                    | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>           |
|------------------|------------------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|--------------------------------|
| 1103             | HEX CHROME INTERMEDIATE<br>STD SOURCE 1 (5PPM) | <a href="#">WP110877</a> | 11/26/2024       | 11/27/2024             | Rubina Mughal      | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Iwona Zarych<br><br>12/02/2024 |

**FROM** 9.00000ml of W3112 + 1.00000ml of WP108658 = Final Quantity: 10.000 ml

| <u>Recipe ID</u> | <u>NAME</u>                                   | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u>    | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>           |
|------------------|-----------------------------------------------|--------------------------|------------------|------------------------|-----------------------|----------------|------------------|--------------------------------|
| 3680             | Anions 300/9056 calibration<br>standard 5-CCV | <a href="#">WP110880</a> | 11/26/2024       | 11/27/2024             | Niha Farheen<br>Shaik | None           | None             | Iwona Zarych<br><br>12/02/2024 |

**FROM** 45.00000ml of W3112 + 5.00000ml of W3063 = Final Quantity: 50.000 ml

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                 | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|-----------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3233             | Anions 300/9056 ICV-LCS std | <a href="#">WP110881</a> | 11/26/2024       | 11/27/2024             | Niha Farheen Shaik | None           | None             | Iwona Zarych         |
|                  |                             |                          |                  |                        |                    |                |                  | 12/02/2024           |

**FROM** 45.00000ml of W3112 + 5.00000ml of W3062 = Final Quantity: 50.000 ml

| <u>Recipe ID</u> | <u>NAME</u>                      | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|----------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 110              | calibration std. hexchrome 0 ppm | <a href="#">WP110882</a> | 11/26/2024       | 11/27/2024             | Rubina Mughal      | None           | None             | Iwona Zarych         |
|                  |                                  |                          |                  |                        |                    |                |                  | 12/02/2024           |

**FROM** 100.00000ml of W3112 = Final Quantity: 100.000 ml



| <u>Recipe ID</u>                                                                            | <u>NAME</u>                         | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>       |
|---------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 109                                                                                         | calibration std. hexchrome 0.01 ppm | <a href="#">WP110883</a> | 11/26/2024       | 11/27/2024             | Rubina Mughal      | None           | WETCHEM_PIPETTE_3<br>(WC) | Iwona Zarych<br>12/02/2024 |
| <b><u>FROM</u></b> 99.80000ml of W3112 + 0.20000ml of WP110877 = Final Quantity: 100.000 ml |                                     |                          |                  |                        |                    |                |                           |                            |

| <u>Recipe ID</u>                                                                            | <u>NAME</u>                          | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>       |
|---------------------------------------------------------------------------------------------|--------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 3800                                                                                        | Calibration Std Hexachrome 0.025 ppm | <a href="#">WP110884</a> | 11/26/2024       | 11/27/2024             | Rubina Mughal      | None           | WETCHEM_FIPETTE_3<br>(WC) | Iwona Zarych<br>12/02/2024 |
| <b><u>FROM</u></b> 99.50000ml of W3112 + 0.50000ml of WP110877 = Final Quantity: 100.000 ml |                                      |                          |                  |                        |                    |                |                           |                            |



| <u>Recipe ID</u>                                                                             | <u>NAME</u>                         | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>  | <u>Supervised By</u> |
|----------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------|----------------------|
| 108                                                                                          | Calibration Std. hexchrome 0.05 ppm | <a href="#">WP110885</a> | 11/26/2024       | 11/27/2024             | Rubina Mughal      | None           | WETCHEM_PIPETTE_3 | Iwona Zarych         |
| (WC)<br><b>FROM</b> 99.00000ml of W3112 + 1.00000ml of WP110877 = Final Quantity: 100.000 ml |                                     |                          |                  |                        |                    |                |                   |                      |

| <u>Recipe ID</u>                                                                            | <u>NAME</u>                        | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>       |
|---------------------------------------------------------------------------------------------|------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 107                                                                                         | Calibration Std. hexchrome 0.1 ppm | <a href="#">WP110886</a> | 11/26/2024       | 11/27/2024             | Rubina Mughal      | None           | WETCHEM_PIPETTE_3<br>(WC) | Iwona Zarych<br>12/02/2024 |
| <b><u>FROM</u></b> 99.80000ml of W3112 + 0.20000ml of WP108658 = Final Quantity: 100.000 ml |                                    |                          |                  |                        |                    |                |                           |                            |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u>                                                                     | <u>NAME</u>                                 | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>           |
|--------------------------------------------------------------------------------------|---------------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|--------------------------------|
| 3808                                                                                 | Calibration and CCV std<br>HexChrome 0.5PPM | <a href="#">WP110887</a> | 11/26/2024       | 11/27/2024             | Rubina Mughal      | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Iwona Zarych<br><br>12/02/2024 |
| <b>FROM</b> 99.00000ml of W3112 + 1.00000ml of WP108658 = Final Quantity: 100.000 ml |                                             |                          |                  |                        |                    |                |                               |                                |

| <u>Recipe ID</u>                                                                     | <u>NAME</u>                         | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>           |
|--------------------------------------------------------------------------------------|-------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|--------------------------------|
| 3809                                                                                 | Calibration std HexChrome<br>1.0PPM | <a href="#">WP110888</a> | 11/26/2024       | 11/27/2024             | Rubina Mughal      | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Iwona Zarych<br><br>12/02/2024 |
| <b>FROM</b> 98.00000ml of W3112 + 2.00000ml of WP108658 = Final Quantity: 100.000 ml |                                     |                          |                  |                        |                    |                |                               |                                |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                     | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>       |
|------------------|---------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 3804             | Hexavalent Chromium ICV-LCS Std | <a href="#">WP110889</a> | 11/26/2024       | 11/27/2024             | Rubina Mughal      | None           | WETCHEM_FIPETTE_3<br>(WC) | Iwona Zarych<br>12/02/2024 |

**FROM** 99.00000ml of W3112 + 1.00000ml of WP108659 = Final Quantity: 100.000 ml

| <u>Recipe ID</u> | <u>NAME</u>        | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>       |
|------------------|--------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------|
| 127              | BOD Dilution fluid | <a href="#">WP110892</a> | 11/27/2024       | 11/28/2024             | Niha Farheen Shaik | None           | None             | Iwona Zarych<br>12/02/2024 |

**FROM** 18.00000L of W3112 + 3.00000PILLOW of W3144 = Final Quantity: 18.000 L



| <u>Recipe ID</u>   | <u>NAME</u>                                                                                       | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>           | <u>PipetteID</u> | <u>Supervised By</u>       |
|--------------------|---------------------------------------------------------------------------------------------------|--------------------------|------------------|------------------------|--------------------|--------------------------|------------------|----------------------------|
| 129                | Glutamic acid-glucose mix for BOD                                                                 | <a href="#">WP110893</a> | 11/27/2024       | 11/28/2024             | Niha Farheen Shaik | WETCHEM_SCALE_6 (M SC-4) | None             | Iwona Zarych<br>12/02/2024 |
| <b><u>FROM</u></b> | 0.15000gram of W2653 + 0.15000gram of W2654 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml |                          |                  |                        |                    |                          |                  |                            |

| <u>Recipe ID</u>                                                                                 | <u>NAME</u>           | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>       |
|--------------------------------------------------------------------------------------------------|-----------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------|
| 128                                                                                              | polyseed seed control | <a href="#">WP110894</a> | 11/27/2024       | 11/28/2024             | Niha Farheen Shaik | None           | None             | Iwona Zarych<br>12/02/2024 |
| <b><u>FROM</u></b> 1.00000PILLOW of W3030 + 300.00000ml of WP110892 = Final Quantity: 300.000 ml |                       |                          |                  |                        |                    |                |                  |                            |



| <u>Recipe ID</u>                                                                           | <u>NAME</u>                  | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>       |
|--------------------------------------------------------------------------------------------|------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 295                                                                                        | TKN Calibration Std (10 ppm) | <a href="#">WP110895</a> | 12/02/2024       | 12/09/2024             | Rubina Mughal      | None           | WETCHEM_PIPETTE_3<br>(WC) | Iwona Zarych<br>12/02/2024 |
| <b><u>FROM</u></b> 49.50000ml of W3112 + 0.50000ml of WP110149 = Final Quantity: 50.000 ml |                              |                          |                  |                        |                    |                |                           |                            |

| <u>Recipe ID</u>                                                                           | <u>NAME</u>       | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>       |
|--------------------------------------------------------------------------------------------|-------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 297                                                                                        | TKN CCV STD 5 ppm | <a href="#">WP110896</a> | 12/02/2024       | 12/09/2024             | Rubina Mughal      | None           | WETCHEM_PIPETTE_3<br>(WC) | Iwona Zarych<br>12/02/2024 |
| <b><u>FROM</u></b> 49.75000ml of W3112 + 0.25000ml of WP110149 = Final Quantity: 50.000 ml |                   |                          |                  |                        |                    |                |                           |                            |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u>                                                                    | <u>NAME</u>       | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>           |
|-------------------------------------------------------------------------------------|-------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|--------------------------------|
| 296                                                                                 | TKN ICV STD 5 ppm | <a href="#">WP110897</a> | 12/02/2024       | 12/09/2024             | Rubina Mughal      | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Iwona Zarych<br><br>12/02/2024 |
| <b>FROM</b> 49.75000ml of W3112 + 0.25000ml of WP110150 = Final Quantity: 50.000 ml |                   |                          |                  |                        |                    |                |                               |                                |

| <u>Recipe ID</u>                                                                    | <u>NAME</u>       | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>           |
|-------------------------------------------------------------------------------------|-------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|--------------------------------|
| 298                                                                                 | TKN LCS STD 5 ppm | <a href="#">WP110898</a> | 12/02/2024       | 12/09/2024             | Rubina Mughal      | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Iwona Zarych<br><br>12/02/2024 |
| <b>FROM</b> 49.75000ml of W3112 + 0.25000ml of WP110150 = Final Quantity: 50.000 ml |                   |                          |                  |                        |                    |                |                               |                                |

## CHEMICAL RECEIPT LOG BOOK

| Supplier         | ItemCode / ItemName                        | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|--------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9254-03 / Acetone, Ultra Resi (cs/4x4L) | 24H2762008 | 05/18/2025      | 11/18/2024 / Rajesh     | 11/15/2024 / Rajesh         | E3830          |

| Supplier         | ItemCode / ItemName                                     | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|---------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L) | 23D2462010 | 03/20/2028      | 09/21/2023 / mohan      | 09/05/2023 / mohan          | M5673          |

| Supplier                    | ItemCode / ItemName                    | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|----------------------------------------|-------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | J0660-1 / AMMONIUM CHLORIDE, ACS, 500G | WL13B | 04/08/2025      | 04/08/2015 / apatel     | 04/08/2015 / apatel         | W1992          |

| Supplier                    | ItemCode / ItemName                    | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|----------------------------------------|-------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | J0660-1 / AMMONIUM CHLORIDE, ACS, 500G | XE09B | 04/08/2025      | 04/08/2015 / apatel     | 04/08/2015 / apatel         | W1993          |

| Supplier                    | ItemCode / ItemName                           | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-----------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | J3506-5 / SODIUM BICARBONATE, PWD, ACS, 2.5KG | 0000240594 | 06/03/2026      | 02/24/2020 / AMANDEEP   | 01/20/2020 / apatel         | W2647          |

| Supplier                    | ItemCode / ItemName                          | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|----------------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | AA13450-36 / Potassium Dichromate, 500g(NEW) | T15F019 | 01/24/2030      | 01/24/2020 / apatel     | 01/24/2020 / apatel         | W2651          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                    | ItemCode / ItemName                                | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|----------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | P188-500 / Potassium Dichromate, 500g(new-2nd lot) | 194664 | 01/24/2030      | 01/24/2020 / apatel     | 01/24/2020 / apatel         | W2652          |

| Supplier                    | ItemCode / ItemName                           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-----------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | AC156212500 / GLUTAMIC ACID BIOCHEM REG, 250G | A0405990 | 01/24/2030      | 01/24/2020 / apatel     | 01/24/2020 / apatel         | W2653          |

| Supplier                    | ItemCode / ItemName                                 | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-----------------------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | D16-500 / DEXTROSE ANHYDROUS ACS REAGENT, 500G(New) | 186122A | 01/24/2030      | 01/24/2020 / apatel     | 01/24/2020 / apatel         | W2654          |

| Supplier                    | ItemCode / ItemName                   | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|---------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 87683 / Sodium Nitroferricyanide 250g | W12F013 | 02/10/2030      | 02/10/2020 / apatel     | 02/10/2020 / apatel         | W2666          |

| Supplier                    | ItemCode / ItemName                     | Lot #     | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-----------------------------------------|-----------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 0330-500G / Cupric Sulfate Pentahydrate | CPECG2635 | 04/23/2025      | 04/23/2020 / apatel     | 04/23/2020 / apatel         | W2697          |

| Supplier                    | ItemCode / ItemName          | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | P1060-10 / PHENOL, ACS, 500G | M13H048 | 01/07/2026      | 07/07/2021 / apatel     | 07/07/2021 / apatel         | W2858          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                    | ItemCode / ItemName           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 31390 / 1,5-Diphenylcarbazine | MKCR6636 | 12/09/2027      | 12/09/2022 / lwona      | 12/09/2022 / lwona          | W2979          |

| Supplier                    | ItemCode / ItemName                  | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|--------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | J3278-5 / Potassium Sulfate, 2.5 Kgs | SLCM9788 | 11/21/2027      | 11/21/2022 / lwona      | 11/21/2022 / lwona          | W2983          |

| Supplier                    | ItemCode / ItemName                      | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|------------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | AL13850-1 / Buffer Solution, PH2 (500ml) | 4212E45 | 12/31/2024      | 01/31/2023 / lwona      | 01/31/2023 / lwona          | W3005          |

| Supplier                    | ItemCode / ItemName  | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|----------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 136742-80 / POLYSEED | 282211 | 11/30/2024      | 10/30/2024 / lwona      | 05/10/2023 / lwona          | W3030          |

| Supplier                    | ItemCode / ItemName                         | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|---------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | EM-SX0395-3 / SODIUM CARBONATE ANHYDR 2.5KG | 2023012653 | 10/19/2028      | 09/03/2024 / jignesh    | 10/19/2023 / lwona          | W3058          |

| Supplier           | ItemCode / ItemName                                  | Lot #        | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|------------------------------------------------------|--------------|-----------------|-------------------------|-----------------------------|----------------|
| Inorganic Ventures | 300-CAL-A-500ML / 300.0 Calibration Standard, 500 ml | T2-MEB716667 | 02/12/2025      | 02/12/2024 / lwona      | 10/30/2023 / lwona          | W3062          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier           | ItemCode / ItemName                                  | Lot #        | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|------------------------------------------------------|--------------|-----------------|-------------------------|-----------------------------|----------------|
| Inorganic Ventures | 300-CAL-A-500ML / 300.0 Calibration Standard, 500 ml | U2-MEB735684 | 04/09/2025      | 04/09/2024 / Iwona      | 11/16/2023 / Iwona          | W3063          |

| Supplier                    | ItemCode / ItemName                     | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-----------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | AL14455-3 / buffer solution pH 7 yellow | 4308H30 | 07/31/2025      | 01/02/2024 / JIGNESH    | 12/06/2023 / Iwona          | W3071          |

| Supplier                    | ItemCode / ItemName                       | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-------------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | AL14940-1 / Buffer Solution, PH12 (500ml) | 2310P21 | 04/30/2025      | 01/02/2024 / JIGNESH    | 12/07/2023 / Iwona          | W3072          |

| Supplier                    | ItemCode / ItemName      | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|--------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | TCX0014-500ML / p-xylene | Y348K-RX | 03/20/2029      | 09/19/2024 / rubina     | 03/20/2024 / Iwona          | W3088          |

| Supplier                    | ItemCode / ItemName                     | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-----------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 566002 / BUFFER PH 7.00 GREEN 1PINT PK6 | 44001f99 | 12/31/2025      | 04/03/2024 / jignesh    | 04/02/2024 / jignesh        | W3093          |

| Supplier                    | ItemCode / ItemName                     | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-----------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 1601-1 / PH 10.01 BUFFER,COLOR CD 475ML | 4310g83 | 03/31/2025      | 04/03/2024 / jignesh    | 04/02/2024 / jignesh        | W3094          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                    | ItemCode / ItemName                      | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|------------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 4620-32 / MANGANOUS SULFATE SOLUTION-364 | 2403J02 | 03/31/2026      | 04/22/2024 / lwona      | 04/22/2024 / lwona          | W3103          |

| Supplier                    | ItemCode / ItemName                           | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-----------------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | AL69870-8 / SODIUM THIOSULFATE,0.025N,4LIT RE | 4403S13 | 09/30/2025      | 04/22/2024 / lwona      | 04/22/2024 / lwona          | W3105          |

| Supplier                    | ItemCode / ItemName              | Lot #     | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|----------------------------------|-----------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | AL14055-3 / PH 4 BUFFER SOLUTION | AL14055-3 | 02/27/2026      | 09/05/2024 / jignesh    | 05/13/2024 / jignesh        | W3107          |

| Supplier                    | ItemCode / ItemName                    | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|----------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | AL04100-4 / Alkaline Iodide Azide, 1 L | 1405D67 | 04/30/2026      | 05/23/2024 / lwona      | 05/23/2024 / lwona          | W3109          |

| Supplier         | ItemCode / ItemName | Lot #               | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|---------------------|---------------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | DIW / DI Water      | Daily Lab-Certified | 07/03/2029      | 07/03/2024 / lwona      | 07/03/2024 / lwona          | W3112          |

| Supplier                    | ItemCode / ItemName                        | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|--------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | PC19510-7 / Sodium Hydroxide Pellets 12 Kg | 23B1556310 | 12/31/2025      | 07/08/2024 / lwona      | 07/08/2024 / lwona          | W3113          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                    | ItemCode / ItemName                             | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-------------------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | PC05050-1 / EDTA, disodium salt, dihydrate 1 lb | 2ND0156 | 07/10/2026      | 07/26/2024 / lwona      | 07/26/2024 / lwona          | W3132          |

| Supplier                    | ItemCode / ItemName                                | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|----------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | J3946-1 / Sodium Thiosulfate Pentahydrate, 500 gms | MKCV5080 | 01/31/2029      | 08/26/2024 / lwona      | 08/26/2024 / lwona          | W3136          |

| Supplier                    | ItemCode / ItemName                         | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|---------------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 140444 / TEST PAPERS,PH 0-14,.5 SENSI,100PK | 10D0142 | 09/17/2029      | 09/17/2024 / lwona      | 09/17/2024 / lwona          | W3140          |

| Supplier                    | ItemCode / ItemName                  | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|--------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | J9416-1 / Sodium Hypochlorite 500 ml | 2407F34 | 01/31/2025      | 09/30/2024 / lwona      | 09/30/2024 / lwona          | W3143          |

| Supplier | ItemCode / ItemName                                                        | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------------------------------------------------------|-------|-----------------|-------------------------|-----------------------------|----------------|
| HACH     | 1486266 / BOD Nutrient Buffer Pillows, 6 mL concentrate to make 6 L, 50/pk | A4169 | 06/30/2029      | 11/20/2024 / rubina     | 10/01/2024 / lwona          | W3144          |

| Supplier                    | ItemCode / ItemName             | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|---------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | AL70850-8 / Starch Solution, 4L | 4408P62 | 08/31/2026      | 10/16/2024 / lwona      | 10/16/2024 / lwona          | W3149          |

# Certificate of Analysis



**Date of Release:** 12/18/2013

**Product:** Ammonium Chloride GR ACS

**Catalog No.:** AX1270 all  
size codes

**Grade:** Meets ACS Specifications

**CAS #:** 12125-02-9

**Country of Origin:** India

**FW:** 53.49

**Lot No.:** WL13B



| Characteristic              | Requirement    |         | Results        | UOM |
|-----------------------------|----------------|---------|----------------|-----|
|                             | Minimum        | Maximum |                |     |
| Assay (argentometric)       | 99.5           |         | 99.9           | %   |
| Calcium (Ca)                |                | 0.001   | 0.0001         | %   |
| Form                        | White crystals |         | White crystals |     |
| Heavy metals (as Pb)        |                | 5       | 5              | ppm |
| Identification              | To pass test   |         | Passes         |     |
| Insoluble matter            |                | 0.005   | 0.002          | %   |
| Iron (Fe)                   |                | 2       | 2              | ppm |
| Loss on drying (105 C)      |                | 0.5     | 0.21           | %   |
| Magnesium (Mg)              |                | 5       | 0.6            | ppm |
| pH of a 5% solution at 25 C | 4.5            | 5.5     | 4.76           |     |
| Phosphate (PO4)             |                | 2       | 2              | ppm |
| Residue after ignition      |                | 0.01    | 0.002          | %   |
| Sulfate (SO4)               |                | 0.002   | 0.002          | %   |

Joe Schoellkopf

-----  
Quality Control Manager

This document has been produced electronically and is valid without a signature.

# Certificate of Analysis



**Date of Release:** 5/12/2014

**Product:** Ammonium Chloride GR ACS

**Catalog No.:** AX1270 all  
size codes

**Grade:** Meets ACS Specifications

**CAS #:** 12125-02-9

**Country of Origin:** India

**FW:** 53.49

**Lot No.:** XE09B



| Characteristic              | Requirement    |         | Results        | UOM |
|-----------------------------|----------------|---------|----------------|-----|
|                             | Minimum        | Maximum |                |     |
| Assay (argentometric)       | 99.5           |         | 99.8           | %   |
| Calcium (Ca)                |                | 0.001   | 0.0001         | %   |
| Form                        | White crystals |         | White crystals |     |
| Heavy metals (as Pb)        |                | 5       | 5              | ppm |
| Identification              | To pass test   |         | Passes         |     |
| Insoluble matter            |                | 0.005   | 0.002          | %   |
| Iron (Fe)                   |                | 2       | 2              | ppm |
| Loss on drying (105 C)      |                | 0.5     | 0.22           | %   |
| Magnesium (Mg)              |                | 5       | 0.7            | ppm |
| pH of a 5% solution at 25 C | 4.5            | 5.5     | 4.95           |     |
| Phosphate (PO4)             |                | 2       | 2              | ppm |
| Residue after ignition      |                | 0.01    | 0.002          | %   |
| Sulfate (SO4)               |                | 0.002   | 0.002          | %   |

Joe Schoellkopf

-----  
Quality Control Manager

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Product No.: 13450  
Product: Potassium dichromate, ACS, 99.0% min  
Lot No.: T15F019

| Test             | Limits              | Results             |
|------------------|---------------------|---------------------|
| Appearance       | Orange-red crystals | Orange-red crystals |
| Identification   | To Pass             | Passes              |
| Purity           | 99.0 % min          | 99.67 %             |
| Insoluble matter | 0.005 % max         | 0.004 %             |
| Loss on drying   | 0.05 % max          | 0.03 %              |
| Chloride         | 0.001 % max         | < 0.001 %           |
| Sulfate          | 0.005 % max         | < 0.005 %           |
| Iron             | 0.001 % max         | < 0.001 %           |
| Calcium          | 0.003 % max         | 0.0012 %            |
| Sodium           | 0.02 % max          | 0.0047 %            |

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Sodium Bicarbonate, Powder  
BAKER ANALYZED® A.C.S. Reagent

(sodium hydrogen carbonate)



Material No.: 3506-05  
Batch No.: 0000240594  
Manufactured Date: 2019/06/05  
Retest Date: 2026/06/03  
Revision No: 1

## Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

| Test                                          | Specification  | Result  |
|-----------------------------------------------|----------------|---------|
| Assay (NaHCO <sub>3</sub> ) (dried basis)     | 99.7 – 100.3 % | 100.1   |
| Insoluble Matter                              | <= 0.015 %     | < 0.002 |
| Chloride (Cl)                                 | <= 0.003 %     | 0.003   |
| Phosphate (PO <sub>4</sub> )                  | <= 0.001 %     | 0.001   |
| Sulfur Compounds (as SO <sub>4</sub> )        | <= 0.003 %     | 0.003   |
| Calcium (Ca)                                  | <= 0.02 %      | 0.02    |
| Trace Impurities – Iron (Fe)                  | <= 0.001 %     | 0.001   |
| Magnesium (Mg)                                | <= 0.005 %     | 0.005   |
| Potassium (K)                                 | <= 0.005 %     | 0.005   |
| Ammonium (NH <sub>4</sub> )                   | <= 5 ppm       | 5       |
| Trace Impurities – ACS – Heavy Metals (as Pb) | <= 5 ppm       | 5       |

For Laboratory, Research or Manufacturing Use  
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: US  
Packaging Site: Paris Mfg Ctr & DC

  
Jamie Ethier  
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700  
Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

W2858 Received by AP on 07/07/2021

Product No.: 33213  
Product: Phenol, ACS, 99+%, stab.  
Lot No.: M13H048

| Test                      | Limits       | Results  |
|---------------------------|--------------|----------|
| Assay                     | 99.0 % min   | 99.8 %   |
| Freezing point            | 40.5°C min   | 40.5 °C  |
| Clarity of solution       | To pass test | Passes   |
| Residue after evaporation | 0.05 % max   | < 0.05 % |
| Water                     | 0.5 % max    | 0.2 %    |

Retest date: January 7, 2026

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W2666 Recived on 02/10/2020 by AP

Product No.: 87683

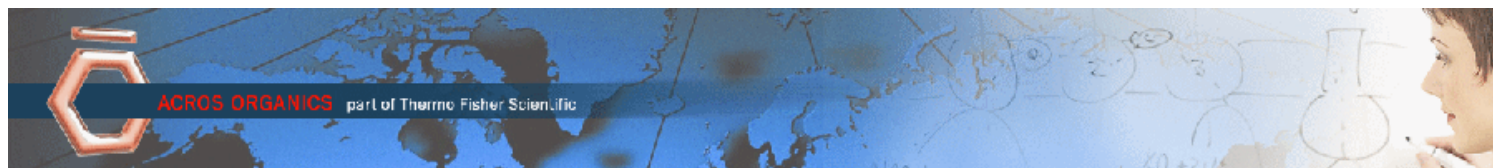
Product: Sodium pentacyanonitrosylferrate(III) dihydrate, ACS,  
99.0-102.0%

Lot No.: W12F013

| Test                  | Limits         | Results      |
|-----------------------|----------------|--------------|
| Assay                 | 99.0 - 102.0 % | 99.67 %      |
| Insoluble             | 0.01 % max     | 0.0079 %     |
| Chloride              | 0.02 % max     | Not detected |
| Sulfate               | To pass test   | Passes test  |
| Aqueous solubility    | To pass test   | Passes test  |
| Limit on Ferricyanide | To pass test   | Passes test  |
| Limit on Ferrocyanide | To pass test   | Passes test  |

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**ACROS**  
**ORGANICS**

**Version** 0  
**Molecular weight** 147.13  
**Molecular formula** C<sub>5</sub> H<sub>9</sub> N O<sub>4</sub>  
**CAS No** 56-86-0  
**Linear formula** HO<sub>2</sub>CCH<sub>2</sub>CH<sub>2</sub>CH(NH<sub>2</sub>)CO<sub>2</sub>H  
**Flash point (°C)**

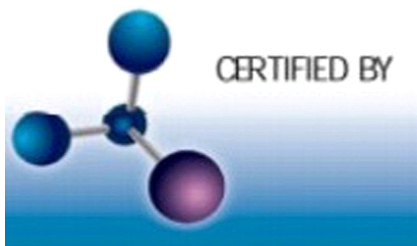
## Certificate of Analysis

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|                              |                         |                                    |               |
|------------------------------|-------------------------|------------------------------------|---------------|
| <b>Catalog Number</b>        | 15621                   | <b>Quality Test / Release Date</b> | 13 March 2019 |
| <b>Lot Number</b>            | A0405990                | <b>Suggested Retest Date</b>       | March 2022    |
| <b>Description</b>           | L(+)-Glutamic acid, 99% |                                    |               |
| <b>Country of Origin</b>     | CHINA                   |                                    |               |
| <b>Declaration of Origin</b> | plant                   |                                    |               |

|                       |                                                       |
|-----------------------|-------------------------------------------------------|
| <b>Origin Comment</b> | The product is made by fermentation of sugar molasses |
|-----------------------|-------------------------------------------------------|

| Result Name                                     | Specifications                                       | Test Value                               |
|-------------------------------------------------|------------------------------------------------------|------------------------------------------|
| Appearance (Color)                              | White                                                | White                                    |
| Appearance (Form)                               | Powder                                               | Powder                                   |
| Infrared spectrum                               | Conforms                                             | Conforms                                 |
| Titration with NaOH                             | 98.5 to 100.5 % (On dried substance)                 | 99.32 % (On dried substance)             |
| Loss on drying                                  | =<0.5 % (105°C, 3 hrs)                               | 0.002 % (105°C, 3 hrs)                   |
| Heavy metals (as Pb)                            | =<10 ppm                                             | =<10 ppm                                 |
| Sulfated ash                                    | =<0.1 %                                              | 0.08 %                                   |
| Other amino acids                               | not detectable                                       | not detectable                           |
| Specific optical rotation                       | +30.5° to +32.5° (20°C, 589 nm) (on dried substance) | +32° (20°C, 589 nm) (on dried substance) |
| Specific optical rotation                       | (c=10, 2N HCl)                                       | (c=10, 2N HCl)                           |
| Chloride (Cl)                                   | =<200 ppm                                            | =<200 ppm                                |
| Iron (Fe)                                       | =<30 ppm                                             | =<10 ppm                                 |
| Sulfate (SO <sub>4</sub> )                      | =<300 ppm                                            | =<200 ppm                                |
| Ammonium (NH <sub>4</sub> )                     | =<200 ppm                                            | =<200 ppm                                |
| Arsenic oxide (As <sub>2</sub> O <sub>3</sub> ) | =<1 ppm                                              | =<1 ppm                                  |



A handwritten signature in black ink, which appears to read "L. Van den Broek".

L. Van den Broek, QA Manager

Issued: 24 January 2020

Acros Organics

ENA23, zone 1, nr 1350, Janssen Pharmaceuticaaan 3a, B-2440 Geel, Belgium

Tel +32 14/57.52.11 - Fax +32 14/59.34.34 Internet: <http://www.acros.com>

1 Reagent Lane, Fair Lawn, NJ 07410, USA Fax 201-796-1329

W3071  
Rec 12/6/23

## Certificate of Analysis 12

Buffer, Reference Standard, pH 7.00 ± 0.01 at 25°C (Color Coded Yellow)

Lot Number: 4308H30

Product Number: 1551

Manufacture Date: AUG 09, 2023

Expiration Date: JUL 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

|    |      |      |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|------|------|
| °C | 0    | 5    | 10   | 15   | 20   | 25   | 30   | 35   | 40   | 45   | 50   |
| pH | 7.12 | 7.09 | 7.06 | 7.04 | 7.02 | 7.00 | 6.99 | 6.98 | 6.98 | 6.97 | 6.97 |

| Name                           | CAS#        | Grade           |
|--------------------------------|-------------|-----------------|
| Water                          | 7732-18-5   | ACS/ASTM/USP/EP |
| Sodium Phosphate Dibasic       | 7558-79-4   | ACS             |
| Potassium Dihydrogen Phosphate | 7778-77-0   | ACS             |
| Preservative                   | Proprietary |                 |
| Yellow Dye                     | Proprietary |                 |
| Sodium Hydroxide               | 1310-73-2   | Reagent         |

| Test       | Specification | Result |
|------------|---------------|--------|
| Appearance | Yellow liquid | Passed |

\*Not a certified value.

| Test                                  | Certified Value | Uncertainty | NIST SRM#               |
|---------------------------------------|-----------------|-------------|-------------------------|
| pH at 25°C (Method: SQCP027, SQCP033) | 7.002           | 0.02        | 186-I-g, 186-II-g, 191d |

| Specification               | Reference       |
|-----------------------------|-----------------|
| Commercial Buffer Solutions | ASTM (D 1293 B) |
| Buffer A                    | ASTM (D 5464)   |
| Buffer A                    | ASTM (D 5128)   |

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 1551-2.5    | 10 L Cubitainer®    | 24 months                       |
| 1551-5      | 20 L Cubitainer®    | 24 months                       |

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Paul Brandon (08/09/2023)

Production Manager

This document is designed to comply with ISO Guide 31 "Reference Materials --  
Contents of Certificates and Labels."

**This product was tested in an ISO 17025 Accredited Laboratory**

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

~~112778~~ W2983  
Rec. 11/21/22 12

## Certificate of Analysis

Product Name:

Potassium sulfate - ReagentPlus®, ≥99.0%

Product Number:

P0772

Batch Number:

SLCM9788

Brand:

SIGALD

CAS Number:

7778-80-5

MDL Number:

MFCD00011388

Formula:

K<sub>2</sub>O<sub>4</sub>S

Formula Weight:

174.26 g/mol

Quality Release Date:

03 MAR 2022

K<sub>2</sub>SO<sub>4</sub>

| Test                               | Specification | Result    |
|------------------------------------|---------------|-----------|
| Appearance (Color)                 | White         | White     |
| Appearance (Form)                  | Powder        | Powder    |
| Solubility (Color)                 | Colorless     | Colorless |
| Solubility (Turbidity)             | Clear         | Clear     |
| 10 g plus 150 mL, H <sub>2</sub> O |               |           |
| Titration with NaOH                | ≥ 99.0 %      | 99.2 %    |



Brian Dulle, Supervisor

Quality Assurance

St. Louis, Missouri US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



W 3029

W 3030

Rec. 05/11/23

12



## CERTIFICATE OF ANALYSIS

PO BOX 130549 Spring, TX 77393  
Phone: (281) 298-9410 Fax: (281) 298-9411

**FINISHED PRODUCT, LOT NUMBER, MFG. /EXP DATE:**

PolySeed® • Part No. P-110 • Lot 282211 • Mfg. Date: 11/2022 • Exp. Date: 11/2024

**FORMULATION:**

The formulation for this product contains a range of naturally occurring microorganisms, which are known to be non-pathogenic to man or animals.

**VIABLE COUNT, FINAL TEST RESULT:**

The product has been fully tested in accordance with Finished Product Specifications and contains a minimum viable count of  $4.00 \times 10^9$  cfu/g.

**GLUCOSE/GLUTAMIC-ACID RESULTS:**

Tested results within acceptable range  $198 \pm 30.5$  mg/L (167.5 - 228.5 mg/L). GGA Lot# J317-19 – Average Test Result: 205.3

See [www.polyseed.com](http://www.polyseed.com) for details.

**SEED CONTROL FACTOR:**

Tested results within acceptable range 0.6 – 1.0 see [www.polyseed.com](http://www.polyseed.com) for details

**SALMONELLA TEST RESULT:**

The product has been shown to be Salmonella negative using procedures recommended in the Microbiology Laboratory Guidebook, published by the USDA Food Safety and Inspection Service.

The purpose of this document is to assure that the Finished Product conforms to the above specification.

Signature: \_\_\_\_\_

*Quality Control Department*

Date: 11/28/2022

POLYSEED.Ref.1.19

Revised Jan 22

# Certificate Of Analysis



W 3058

Re. 10/19/23 12

Date of Release: 1/27/2023

Name: **Sodium Carbonate, Anhydrous**

Powder, ACS

Item No: **SX0395 All Sizes**

Lot / Batch No: **2023012653**

Country of Origin: **India**

| Item                                   | Specifications | Analysis    |
|----------------------------------------|----------------|-------------|
| Assay (calculated on dried substance)  | 99.5% min.     | 100.2%      |
| Calcium (Ca)                           | 0.03% max.     | 0.004%      |
| Chloride (Cl)                          | 0.001% max.    | <0.001%     |
| Color                                  | White          | Passes Test |
| Form                                   | Powder         | Passes Test |
| Heavy metals (by ICP-OES)              | 5 ppm max.     | <5 ppm      |
| Insoluble Matter                       | 0.01% max.     | 0.003%      |
| Iron (Fe)                              | 5 ppm max.     | <5 ppm      |
| Loss on heating at 285C                | 1.0% max.      | 0.1%        |
| Magnesium (Mg)                         | 0.005% max.    | 0.0008%     |
| Phosphate (PO <sub>4</sub> )           | 0.001% max.    | <0.001%     |
| Potassium (K)                          | 0.005% max.    | 0.003%      |
| Silica (SiO <sub>2</sub> )             | 0.005% max.    | <0.005%     |
| Sulfur compounds (as SO <sub>4</sub> ) | 0.003% max.    | <0.003%     |

Joe Schoellkopf

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany

EMD Millipore Corporation

400 Summit Drive  
Burlington, MA 01803  
U.S.A.

Form number: 00005624CA, Rev. 2.0

# Certificate of Analysis

300 Technology Drive  
Christiansburg, VA 24073 USA  
inorganicventures.com

P: 800-669-6799/540-585-3030

F: 540-585-3012

info@inorganicventures.com

N 3062

rec on 10/30/23  
12

## 1.0 ACCREDITATION / REGISTRATION

**INORGANIC VENTURES** is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



## 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Ion Chromatography Solution  
Catalog Number: 300-CAL-A  
Lot Number: T2-MEB716667  
Matrix: H2O  
Value / Analyte(s):  
150 µg/mL ea:  
Sulfate,  
100 µg/mL ea:  
Bromide,  
50 µg/mL ea:  
o-Phosphate as P,  
30 µg/mL ea:  
Chloride, Nitrite as N,  
25 µg/mL ea:  
Nitrate as N,  
20 µg/mL ea:  
Fluoride

## 3.0 CERTIFIED VALUES AND UNCERTAINTIES

| ANALYTE             | CERTIFIED VALUE    | ANALYTE                | CERTIFIED VALUE    |
|---------------------|--------------------|------------------------|--------------------|
| Bromide, Br         | 100.0 ± 0.5 µg/mL  | Chloride, Cl           | 30.00 ± 0.13 µg/mL |
| Fluoride, F-        | 20.00 ± 0.06 µg/mL | Nitrate as N, NNO3-    | 25.00 ± 0.09 µg/mL |
| Nitrite as N, NNO2- | 30.00 ± 0.15 µg/mL | o-Phosphate as P, PPO4 | 50.00 ± 0.30 µg/mL |
| Sulfate, SO4        | 150.0 ± 0.9 µg/mL  |                        |                    |

**Density:** 0.999 g/mL (measured at 20 ± 4 °C)

**Assay Information:**

| ANALYTE | METHOD     | NIST SRM# | SRM LOT#         |
|---------|------------|-----------|------------------|
| Br      | IC Assay   | 3184      | 151130           |
| Br      | Fajans     | 999c      | 999c             |
| Cl      | IC Assay   | 3182      | 060925           |
| Cl      | Fajans     | 999c      | 999c             |
| Cl      | Calculated |           | See Sec. 4.2     |
| F-      | IC Assay   | 3183      | 140203           |
| NNO3-   | IC Assay   | 3185      | 050517           |
| NNO2-   | IC Assay   |           | traceable to 40h |
| PPO4    | IC Assay   | 3186      | 170606           |
| SO4     | IC Assay   | 3181      | 080603           |

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

#### Characterization of CRM/RM by Two or More Methods

Certified Value,  $X_{CRM/RM}$ , where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

$X_i$  = mean of Assay Method  $i$  with standard uncertainty  $u_{char\ i}$

$w_i$  = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum (1/(u_{char\ i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{char} = [\sum ((w_i)^2 (u_{char\ i}^2))]^{1/2}$  where  $u_{char\ i}$  are the errors from each characterization method

$u_{bb}$  = bottle to bottle homogeneity standard uncertainty

$u_{lts}$  = long term stability standard uncertainty (storage)

$u_{ts}$  = transport stability standard uncertainty

#### Characterization of CRM/RM by One Method

Certified Value,  $X_{CRM/RM}$ , where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

$X_a$  = mean of Assay Method A with

$u_{char\ a}$  = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{char\ a}$  = the errors from characterization

$u_{bb}$  = bottle to bottle homogeneity standard uncertainty

$u_{lts}$  = long term stability standard uncertainty (storage)

$u_{ts}$  = transport stability standard uncertainty

## 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

### 4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

### 4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

### 4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

## 5.0 CHROMATOGRAM

N/A

## 6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

## 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

### 7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit [www.inorganicventures.com/TCT](http://www.inorganicventures.com/TCT)

## **8.0 HAZARDOUS INFORMATION**

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

## **9.0 HOMOGENEITY**

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

## **10.0 QUALITY STANDARD DOCUMENTATION**

### **10.1 ISO 9001 Quality Management System Registration**

- QSR Certificate Number QSR-1034

### **10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"**

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

### **10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"**

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; [inorganicventures.com](http://inorganicventures.com); [info@inorganicventures.com](mailto:info@inorganicventures.com)

## **11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY**

### **11.1 Certification Issue Date**

March 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

### **11.2 Lot Expiration Date**

- **March 17, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

### 11.3 Period of Validity

- Sealed TCT Bag Open Date: \_\_\_\_\_

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

### 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

#### Certificate Approved By:

Thomas Kozikowski  
Manager, Quality Control



#### Certifying Officer:

Paul Gaines  
Chairman / Senior Technical Director



# Certificate of Analysis

300 Technology Drive  
Christiansburg, VA 24073 USA  
inorganicventures.com

P: 800-669-6799/540-585-3030  
F: 540-585-3012  
info@inorganicventures.com

W3063  
rec. 11/16/23 12

## 1.0 ACCREDITATION / REGISTRATION

**INORGANIC VENTURES** is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



## 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Ion Chromatography Solution  
Catalog Number: 300-CAL-A  
Lot Number: U2-MEB735684  
Matrix: H<sub>2</sub>O  
Value / Analyte(s):  
150 µg/mL ea:  
Sulfate,  
100 µg/mL ea:  
Bromide,  
50 µg/mL ea:  
o-Phosphate as P,  
30 µg/mL ea:  
Chloride, Nitrite as N,  
25 µg/mL ea:  
Nitrate as N,  
20 µg/mL ea:  
Fluoride

## 3.0 CERTIFIED VALUES AND UNCERTAINTIES

| ANALYTE                          | CERTIFIED VALUE    | ANALYTE                            | CERTIFIED VALUE    |
|----------------------------------|--------------------|------------------------------------|--------------------|
| Bromide, Br                      | 100.0 ± 0.5 µg/mL  | Chloride, Cl                       | 30.00 ± 0.14 µg/mL |
| Fluoride, F-                     | 20.00 ± 0.06 µg/mL | Nitrate as N, NNO <sub>3</sub> -   | 25.00 ± 0.09 µg/mL |
| Nitrite as N, NNO <sub>2</sub> - | 30.00 ± 0.15 µg/mL | o-Phosphate as P, PPO <sub>4</sub> | 50.00 ± 0.18 µg/mL |
| Sulfate, SO <sub>4</sub>         | 150.0 ± 0.8 µg/mL  |                                    |                    |

Density: 0.999 g/mL (measured at 20 ± 4 °C)

### Assay Information:

| ANALYTE | METHOD   | NIST SRM# | SRM LOT#         |
|---------|----------|-----------|------------------|
| Br      | IC Assay | 3184      | 151130           |
| Br      | Fajans   | 999c      | 999c             |
| Cl      | IC Assay | 3182      | 190830           |
| Cl      | Fajans   | 999c      | 999c             |
| F-      | IC Assay | 3183      | 140203           |
| NNO3-   | IC Assay | 3185      | 170309           |
| NNO2-   | IC Assay |           | traceable to 40h |
| PPO4    | IC Assay | 3186      | 170606           |
| SO4     | IC Assay | 3181      | 080603           |

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

#### Characterization of CRM/RM by Two or More Methods

Certified Value,  $X_{CRM/RM}$ , where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

$X_i$  = mean of Assay Method  $i$  with standard uncertainty  $u_{char i}$

$w_i$  = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{char} = [\sum(w_i)^2(u_{char i}^2)]^{1/2}$  where  $u_{char i}$  are the errors from each characterization method

$u_{bb}$  = bottle to bottle homogeneity standard uncertainty

$u_{lts}$  = long term stability standard uncertainty (storage)

$u_{ts}$  = transport stability standard uncertainty

#### Characterization of CRM/RM by One Method

Certified Value,  $X_{CRM/RM}$ , where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char a})$$

$X_a$  = mean of Assay Method A with

$u_{char a}$  = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k(u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{char a}$  = the errors from characterization

$u_{bb}$  = bottle to bottle homogeneity standard uncertainty

$u_{lts}$  = long term stability standard uncertainty (storage)

$u_{ts}$  = transport stability standard uncertainty

## 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

### 4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

### 4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

### 4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

## 5.0 CHROMATOGRAM

N/A

## 6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale. <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

## **7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**

### **7.1 Storage and Handling Recommendations**

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.
- For more information, visit [www.inorganicventures.com/TCT](http://www.inorganicventures.com/TCT)

## **8.0 HAZARDOUS INFORMATION**

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

## **9.0 HOMOGENEITY**

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

## **10.0 QUALITY STANDARD DOCUMENTATION**

### **10.1 ISO 9001 Quality Management System Registration**

- QSR Certificate Number QSR-1034

### **10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"**

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

### **10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"**

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; [info@inorganicventures.com](mailto:info@inorganicventures.com);

## **11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY**

### 11.1 Certification Issue Date

August 10, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

### 11.2 Lot Expiration Date

- **August 10, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

### 11.3 Period of Validity

- Sealed TCT Bag Open Date: \_\_\_\_\_

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

## 12.0

### NAMES AND SIGNATURES OF CERTIFYING OFFICERS

#### Certificate Prepared By:

Justin Dirico  
Stock Processing Supervisor



#### Certificate Approved By:

Nicholas Plymale  
Custom VSM Coordinator



#### Certifying Officer:

Paul Gaines  
Chairman / Senior Technical Director





# RICCA CHEMICAL COMPANY®

1841 Broad Street  
Pocomoke City, MD 21851  
<http://www.riccachemical.com>  
1-888-GO-RICCA  
[customerservice@riccachemical.com](mailto:customerservice@riccachemical.com)

W 3072  
REC. 12/01/23  
12

## Certificate of Analysis

Buffer, Reference Standard, pH 12.00 ± 0.01 at 25°C

Lot Number: 2310P21

Product Number: 1615

Manufacture Date: OCT 24, 2023

Expiration Date: APR 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist.

|    |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|
| °C | 15    | 20    | 25    | 30    | 35    | 40    |
| pH | 12.35 | 12.17 | 11.99 | 11.78 | 11.62 | 11.46 |

| Name               | CAS#      | Grade           |
|--------------------|-----------|-----------------|
| Water              | 7732-18-5 | ACS/ASTM/USP/EP |
| Potassium Chloride | 7447-40-7 | ACS             |
| Sodium Hydroxide   | 1310-73-2 | Reagent         |

| Test       | Specification    | Result |
|------------|------------------|--------|
| Appearance | Colorless liquid | Passed |

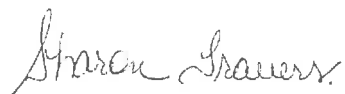
\*Not a certified value.

| Test                                  | Certified Value | Uncertainty | NIST SRM#               |
|---------------------------------------|-----------------|-------------|-------------------------|
| pH at 25°C (Method: SQCP027, SQCP033) | 12.005          | 0.02        | 186-I-g, 186-II-g, 191d |

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 1615-1      | 4 L natural poly    | 18 months                       |
| 1615-16     | 500 mL clear PET-G  | 18 months                       |
| 1615-32     | 1 L natural poly    | 18 months                       |
| 1615-5      | 20 L Cubitainer®    | 18 months                       |

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Sharon Travers (10/24/2023)

Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials --  
Contents of Certificates and Labels."

**This product was tested in an ISO 17025 Accredited Laboratory**

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.



## Certificate of Analysis

1 Reagent Lane  
Fair Lawn, NJ 07410  
201.796.7100 tel  
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System  
Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

|                   |                                                                                                                                                                                                   |                             |            |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------|
| Catalog Number    | D16                                                                                                                                                                                               | Quality Test / Release Date | 03/19/2019 |
| Lot Number        | 186122A                                                                                                                                                                                           |                             |            |
| Description       | DEXTROSE, ANHYDROUS, A.C.S.                                                                                                                                                                       |                             |            |
| Country of Origin | United States                                                                                                                                                                                     | Suggested Retest Date       | Mar/2022   |
| Chemical Origin   | Organic - Plant                                                                                                                                                                                   |                             |            |
| BSE/TSE Comment   | No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product. |                             |            |
| Chemical Comment  |                                                                                                                                                                                                   |                             |            |

| N/A                      |                  |                                 |                        |
|--------------------------|------------------|---------------------------------|------------------------|
| Result Name              | Units            | Specifications                  | Test Value             |
| APPEARANCE               |                  | REPORT                          | White, granular powder |
| TITRATABLE ACID          | MEQ/G            | <= 0.002                        | <0.002                 |
| STARCH                   |                  | = PASS TEST                     | pass test              |
| SPECIFIC ROTATION @ 25 C | DEGREES (+ OR -) | Inclusive Between +52.5 - +53.0 | 53.0                   |
| SULFATE & SULFITE        | %                | <= 0.005                        | <0.005                 |
| IRON (Fe)                | ppm              | <= 5                            | <5                     |
| CHLORIDE                 | %                | <= 0.01                         | <0.01                  |
| IGNITION RESIDUE         | %                | <= 0.02                         | <0.02                  |
| IDENTIFICATION           | PASS/FAIL        | = PASS TEST                     | pass test              |
| HEAVY METALS (as Pb)     | ppm              | <= 5                            | <5                     |
| LOSS ON DRYING @ 105 C   | %                | <= 0.2                          | <0.2                   |
| INSOLUBLE MATTER         | %                | <= 0.005                        | 0.002                  |

*Jerisa Bailey-Wyche*

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above. If there are any questions with this certificate, please call at (800) 227-6701.

\*Based on suggested storage condition.



## Certificate of Analysis

1 Reagent Lane  
Fair Lawn, NJ 07410  
201.796.7100 tel  
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System  
Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

|                   |                                                                                                                                                                                                   |                             |            |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------|
| Catalog Number    | P188                                                                                                                                                                                              | Quality Test / Release Date | 08/12/2019 |
| Lot Number        | 194664                                                                                                                                                                                            |                             |            |
| Description       | POTASSIUM DICHROMATE, A.C.S.                                                                                                                                                                      |                             |            |
| Country of Origin | United States                                                                                                                                                                                     | Suggested Retest Date       | Aug/2024   |
| Chemical Origin   | Inorganic-non animal                                                                                                                                                                              |                             |            |
| BSE/TSE Comment   | No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product. |                             |            |
| Chemical Comment  |                                                                                                                                                                                                   |                             |            |

| N/A                    |           |                |                           |
|------------------------|-----------|----------------|---------------------------|
| Result Name            | Units     | Specifications | Test Value                |
| APPEARANCE             |           | REPORT         | Fine, orange-red crystals |
| ASSAY                  | %         | >= 99          | 99.2                      |
| CALCIUM                | %         | <= 0.003       | <0.003                    |
| CHLORIDE               | %         | <= 0.001       | <0.001                    |
| LOSS ON DRYING @ 105 C | %         | <= 0.05        | <0.05                     |
| SULFATE (SO4)          | %         | <= 0.005       | <0.005                    |
| INSOLUBLE MATTER       | %         | <= 0.005       | 0.003                     |
| IRON (Fe)              | %         | <= 0.001       | <0.001                    |
| SODIUM (Na)            | %         | <= 0.02        | <0.02                     |
| IDENTIFICATION         | PASS/FAIL | = PASS TEST    | PASS TEST                 |

*Jerusa Bailey-Wyche*

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above. If there are any questions with this certificate, please call at (800) 227-6701.

\*Based on suggested storage condition.

# Allan Chemical Corporation

235 Margaret King Avenue  
Ringwood NJ 07456

Telephone: 973-962-4014  
Fax: 973-962-6820  
E-Mail: allanchem@allanchem.com

ATTN: ALLAN CHEMICAL - QC DEPT.  
DATE: September 20, 2021  
P.O. #: 14410  
PART #: N/A  
LOT #: CPECG2635

W2697

## CERTIFICATE OF ANALYSIS CUPRIC SULFATE CRYSTAL – ACS GRADE

|                            |             |
|----------------------------|-------------|
| <u>ASSAY:</u>              | 102.0 %     |
| <u>LEAD:</u>               | < 0.0001 %  |
| <u>NITROGEN COMPOUNDS:</u> | < 0.001 %   |
| <u>ZINC:</u>               | < 0.0001 %  |
| <u>INSOLUBLE MATTER:</u>   | < 0.001 %   |
| <u>CHLORIDE:</u>           | < 0.001 %   |
| <u>CHROMIUM:</u>           | < 0.00002 % |
| <u>IRON:</u>               | 0.0003 %    |
| <u>NICKEL:</u>             | < 0.0001 %  |
| <u>CADMIUM:</u>            | < 0.0001 %  |
| <u>MANGANESE:</u>          | < 0.0001 %  |
| <u>CALCIUM:</u>            | < 0.005 %   |
| <u>POTASSIUM:</u>          | < 0.001 %   |
| <u>SODIUM:</u>             | < 0.001 %   |

Acetone  
BAKER RESI-ANALYZED® Reagent  
For Organic Residue Analysis

avantor™



Material No.: 9254-03

Batch No.: 24H2762008

Manufactured Date: 2024-04-18

Expiration Date: 2027-04-18

Revision No.: 0

## Certificate of Analysis

| Test                                                                    | Specification | Result      |
|-------------------------------------------------------------------------|---------------|-------------|
| Assay ((CH <sub>3</sub> ) <sub>2</sub> CO) (by GC, corrected for water) | >= 99.4 %     | 100.0 %     |
| Color (APHA)                                                            | <= 10         | 5           |
| Residue after Evaporation                                               | <= 1.0 ppm    | 0.0 ppm     |
| Substances Reducing Permanganate                                        | Passes Test   | Passes Test |
| Titration Acid (µeq/g)                                                  | <= 0.3        | 0.2         |
| Titration Base (µeq/g)                                                  | <= 0.6        | <0.1        |
| Water (H <sub>2</sub> O)                                                | <= 0.5 %      | <0.1 %      |
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)    | <= 5          | 1           |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)    | <= 10         | 1           |

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

Recd. by RP on 11/15/24

E 3830

Jamie Croak  
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials LLC

Sulfuric Acid  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis  
Low Selenium

 **avantor**™



Material No.: 9673-33  
Batch No.: 23D2462010  
Manufactured Date: 2023-03-22  
Retest Date: 2028-03-20  
Revision No.: 0

## Certificate of Analysis

| Test                                                         | Specification | Result      |
|--------------------------------------------------------------|---------------|-------------|
| ACS – Assay (H <sub>2</sub> SO <sub>4</sub> )                | 95.0 – 98.0 % | 96.1 %      |
| Appearance                                                   | Passes Test   | Passes Test |
| ACS – Color (APHA)                                           | ≤ 10          | 5           |
| ACS – Residue after Ignition                                 | ≤ 3 ppm       | < 1 ppm     |
| ACS – Substances Reducing Permanganate (as SO <sub>2</sub> ) | ≤ 2 ppm       | < 2 ppm     |
| Ammonium (NH <sub>4</sub> )                                  | ≤ 1 ppm       | 1 ppm       |
| Chloride (Cl)                                                | ≤ 0.1 ppm     | < 0.1 ppm   |
| Nitrate (NO <sub>3</sub> )                                   | ≤ 0.2 ppm     | < 0.1 ppm   |
| Phosphate (PO <sub>4</sub> )                                 | ≤ 0.5 ppm     | < 0.1 ppm   |
| Trace Impurities – Aluminum (Al)                             | ≤ 30.0 ppb    | < 5.0 ppb   |
| Arsenic and Antimony (as As)                                 | ≤ 4.0 ppb     | < 2.0 ppb   |
| Trace Impurities – Boron (B)                                 | ≤ 10.0 ppb    | 8.5 ppb     |
| Trace Impurities – Cadmium (Cd)                              | ≤ 2.0 ppb     | < 0.3 ppb   |
| Trace Impurities – Chromium (Cr)                             | ≤ 6.0 ppb     | < 0.4 ppb   |
| Trace Impurities – Cobalt (Co)                               | ≤ 0.5 ppb     | < 0.3 ppb   |
| Trace Impurities – Copper (Cu)                               | ≤ 1.0 ppb     | < 0.1 ppb   |
| Trace Impurities – Gold (Au)                                 | ≤ 10.0 ppb    | 0.5 ppb     |
| Heavy Metals (as Pb)                                         | ≤ 500.0 ppb   | < 100.0 ppb |
| Trace Impurities – Iron (Fe)                                 | ≤ 50.0 ppb    | 1.3 ppb     |
| Trace Impurities – Lead (Pb)                                 | ≤ 0.5 ppb     | < 0.5 ppb   |
| Trace Impurities – Magnesium (Mg)                            | ≤ 7.0 ppb     | 0.8 ppb     |
| Trace Impurities – Manganese (Mn)                            | ≤ 1.0 ppb     | < 0.4 ppb   |
| Trace Impurities – Mercury (Hg)                              | ≤ 0.5 ppb     | < 0.1 ppb   |
| Trace Impurities – Nickel (Ni)                               | ≤ 2.0 ppb     | 0.3 ppb     |
| Trace Impurities – Potassium (K)                             | ≤ 500.0 ppb   | < 2.0 ppb   |
| Trace Impurities – Selenium (Se)                             | ≤ 50.0 ppb    | < 0.1 ppb   |
| Trace Impurities – Silicon (Si)                              | ≤ 100.0 ppb   | 31.5 ppb    |
| Trace Impurities – Silver (Ag)                               | ≤ 1.0 ppb     | < 0.3 ppb   |

>>> Continued on page 2 >>>

Sulfuric Acid  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis  
Low Selenium



Material No.: 9673-33  
Batch No.: 23D2462010

| Test                              | Specification    | Result    |
|-----------------------------------|------------------|-----------|
| Trace Impurities – Sodium (Na)    | $\leq 500.0$ ppb | 5.4 ppb   |
| Trace Impurities – Strontium (Sr) | $\leq 5.0$ ppb   | < 0.2 ppb |
| Trace Impurities – Tin (Sn)       | $\leq 5.0$ ppb   | < 0.8 ppb |
| Trace Impurities – Zinc (Zn)      | $\leq 5.0$ ppb   | 0.4 ppb   |

For Laboratory, Research, or Manufacturing Use

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

A handwritten signature in cursive script that reads 'James Ethier'.  
Jamie Ethier  
Vice President Global Quality

W 2979

Rec: 12/09/22

exp. 12/09/27

Product Name:

1,5-Diphenylcarbazide - ACS reagent

Product Number:

259225

Batch Number:

MKCR6636

Brand:

SIAL

CAS Number:

140-22-7

MDL Number:

MFCD00003013

Formula:

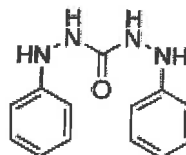
C<sub>13</sub>H<sub>14</sub>N<sub>4</sub>O

Formula Weight:

242.28 g/mol

Quality Release Date:

02 JUN 2022



## Certificate of Analysis

| Test                                   | Specification             | Result   |
|----------------------------------------|---------------------------|----------|
| Appearance (Color)                     | Conforms to Requirements  | Pink     |
| Off-White to Pink, Light Purple or Tan |                           |          |
| Appearance (Form)                      | Powder or Chunks          | Powder   |
| Melting Point                          | 173.0 - 176.0 °C          | 173.0 °C |
| Infrared Spectrum                      | Conforms to Structure     | Conforms |
| Residue on ignition (Ash)              | ≤ 0.05 %                  | 0.01 %   |
| 15 minutes, 800 Degrees Celsius        |                           |          |
| Solubility                             | Pass                      | Pass     |
| Sensitivity Test                       | Pass                      | Pass     |
| Meets ACS Requirements                 | Current ACS Specification | Conforms |



Larry Coers, Director  
Quality Control  
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



**RICCA CHEMICAL COMPANY®**

W 3005

REC- 1/31/23

12

1490 Lammers Pike

Batesville, IN 47006

<http://www.riccachemical.com>

1-888-GO-RICCA

customerservice@riccachemical.com

# Certificate of Analysis

**Buffer, Reference Standard, pH 2.00 ± 0.01 at 25°C****Lot Number: 4212E45****Product Number: 1493****Manufacture Date: DEC 20, 2022****Expiration Date: DEC 2024**

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| °C | 10   | 15   | 20   | 25   | 30   | 35   | 40   | 45   | 50   |
| pH | 1.93 | 1.98 | 1.98 | 2.00 | 2.01 | 2.03 | 2.03 | 2.04 | 2.04 |

| Name               | CAS#      | Grade           |
|--------------------|-----------|-----------------|
| Water              | 7732-18-5 | ACS/ASTM/USP/EP |
| Potassium Chloride | 7447-40-7 | ACS             |
| Hydrochloric Acid  | 7647-01-0 | ACS             |

| Test       | Specification    | Result |
|------------|------------------|--------|
| Appearance | Colorless liquid | Passed |

\*Not a certified value.

| Test                                  | Certified Value | Uncertainty | NIST SRM#               |
|---------------------------------------|-----------------|-------------|-------------------------|
| pH at 25°C (Method: SQCP027, SQCP033) | 2.000           | 0.02        | 185i, 186-I-g, 186-II-g |

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 1493-1      | 4 L natural poly    | 24 months                       |
| 1493-16     | 500 mL natural poly | 24 months                       |
| 1493-32     | 1 L natural poly    | 24 months                       |
| 1493-5      | 20 L Cubitainer®    | 24 months                       |

**Recommended Storage: 15°C - 30°C (59°F - 86°F)**



Paul Brandon (12/20/2022)

Production Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

**This product was tested in an ISO 17025 Accredited Laboratory**

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W3084-W3088 Received on 3/20/24 by IZ

## Certificate of Analysis

03/20/2024(JST)

TOKYO CHEMICAL INDUSTRY CO.,LTD.

T-PLUS Nihonbashi-Kodemmacho

16-12 Nihonbashi-kodemmacho, Chuo-ku, Tokyo 103-0001, Japan

|                                           |            |  |
|-------------------------------------------|------------|--|
| Chemical Name: <b>p-Xylene</b>            |            |  |
| Product Number: X0014<br>CAS RN: 106-42-3 | Lot: Y348K |  |

| Tests      | Results                | Specifications                             |
|------------|------------------------|--------------------------------------------|
| Appearance | Colorless clear liquid | Colorless to Almost colorless clear liquid |
| Purity(GC) | 99.7 %                 | min. 99.0 %                                |

TCI Lot numbers are 4-5 characters in length. Characters listed after the first 4-5 characters are control numbers for internal purpose only.

The contents of the specifications are subject to change without advance notice. The specification values displayed here are the most up to date values. There may be cases where the product labels display a different specification, however, the product quality still meets the latest specification.

### Customer Service:

TCI AMERICA

Tel: +1-800-423-8616 / +1-503-283-1681

Fax: +1-888-520-1075 / +1-503-283-1987

E-mail: Sales-US@TCIchemicals.com

Takuya Nishioka  
Quality Assurance Department Manager

**RICCA CHEMICAL COMPANY®**

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Batesville, IN 47006

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customerservice@riccachemical.com

# Certificate of Analysis

W3093  
094121  
04/03/2024  
16

**Buffer, Reference Standard, pH 7.00 ± 0.01 at 25°C (Color Coded Yellow)****Lot Number:** 4401F99**Product Number:** 1551**Manufacture Date:** JAN 08, 2024**Expiration Date:** DEC 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

|    |      |      |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|------|------|
| °C | 0    | 5    | 10   | 15   | 20   | 25   | 30   | 35   | 40   | 45   | 50   |
| pH | 7.12 | 7.09 | 7.06 | 7.04 | 7.02 | 7.00 | 6.99 | 6.98 | 6.98 | 6.97 | 6.97 |

| Name                           | CAS#        | Grade           |
|--------------------------------|-------------|-----------------|
| Water                          | 7732-18-5   | ACS/ASTM/USP/EP |
| Sodium Phosphate Dibasic       | 7558-79-4   | ACS             |
| Potassium Dihydrogen Phosphate | 7778-77-0   | ACS             |
| Preservative                   | Proprietary |                 |
| Yellow Dye                     | Proprietary |                 |
| Sodium Hydroxide               | 1310-73-2   |                 |

| Test       | Specification | Result |
|------------|---------------|--------|
| Appearance | Yellow liquid | Passed |

\*Not a certified value.

| Test                                  | Certified Value | Uncertainty | NIST SRM#               |
|---------------------------------------|-----------------|-------------|-------------------------|
| pH at 25°C (Method: SQCP027, SQCP033) | 7.004           | 0.02        | 186-I-g, 186-II-g, 191d |

| Specification               | Reference       |
|-----------------------------|-----------------|
| Commercial Buffer Solutions | ASTM (D 1293 B) |
| Buffer A                    | ASTM (D 5464)   |
| Buffer A                    | ASTM (D 5128)   |

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 1551-1      | 4 L natural poly    | 24 months                       |
| 1551-1CT    | 4 L Cubitainer®     | 24 months                       |
| 1551-2.5    | 10 L Cubitainer®    | 24 months                       |
| 1551-5      | 20 L Cubitainer®    | 24 months                       |

**Recommended Storage:** 15°C - 30°C (59°F - 86°F)



Paul Brandon (01/08/2024)

Production Manager

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Contents of Certificates and Labels."

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## Certificate of Analysis

Buffer, Reference Standard, pH 10.00 ± 0.01 at 25°C (Color Coded Blue)

Lot Number: 4310G83

Product Number: 1601

Manufacture Date: OCT 09, 2023

Expiration Date: MAR 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

|    |       |       |       |       |       |       |      |      |      |      |
|----|-------|-------|-------|-------|-------|-------|------|------|------|------|
| °C | 0     | 5     | 10    | 15    | 20    | 25    | 30   | 35   | 40   | 50   |
| pH | 10.31 | 10.23 | 10.17 | 10.11 | 10.05 | 10.00 | 9.95 | 9.91 | 9.87 | 9.81 |

| Name               | CAS#        | Grade           |
|--------------------|-------------|-----------------|
| Water              | 7732-18-5   | ACS/ASTM/USP/EP |
| Sodium Carbonate   | 497-19-8    | ACS             |
| Sodium Bicarbonate | 144-55-8    | ACS             |
| Sodium Hydroxide   | 1310-73-2   | Reagent         |
| Preservative       | Proprietary |                 |
| Blue Dye           | Proprietary |                 |

| Test       | Specification | Result |
|------------|---------------|--------|
| Appearance | Blue liquid   | Passed |

\*Not a certified value.

| Test                                  | Certified Value | Uncertainty | NIST SRM#               |
|---------------------------------------|-----------------|-------------|-------------------------|
| pH at 25°C (Method: SQCP027, SQCP033) | 10.003          | 0.02        | 186-I-g, 186-II-g, 191d |

| Specification               | Reference       |
|-----------------------------|-----------------|
| Commercial Buffer Solutions | ASTM (D 1293 B) |
| Buffer C                    | ASTM (D 5464)   |
| Buffer C                    | ASTM (D 5128)   |

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 1601-16     | 500 mL natural poly | 18 months                       |
| 1601-5      | 20 L Cubitainer®    | 18 months                       |

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Paul Brandon (10/09/2023)

Production Manager

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Contents of Certificates and Labels."

**This product was tested in an ISO 17025 Accredited Laboratory**

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# Certificate of Analysis

**Manganous Sulfate Solution, 364 g/L****Lot Number:** 2403J02**Product Number:** 4620**Manufacture Date:** MAR 15, 2024**Expiration Date:** MAR 2026

| Name                          | CAS#       | Grade           |
|-------------------------------|------------|-----------------|
| Water                         | 7732-18-5  | ACS/ASTM/USP/EP |
| Manganous Sulfate Monohydrate | 10034-96-5 | Reagent         |
| Sulfuric Acid                 | 7664-93-9  | ACS             |

| Test                        | Specification | Result  |
|-----------------------------|---------------|---------|
| Appearance                  | Pink liquid   | Passed  |
| Assay (by Refractive Index) | 360-368 g/L   | 367 g/L |

| Specification              | Reference       |
|----------------------------|-----------------|
| Manganous Sulfate Solution | ASTM (D 888 A)  |
| Manganous Sulfate Solution | ASTM (D 888 A)  |
| Manganous Sulfate Solution | APHA (4500-O E) |
| Manganous Sulfate Solution | APHA (4500-O F) |
| Manganous Sulfate Solution | APHA (4500-O D) |
| Manganous Sulfate Solution | APHA (4500-O E) |
| Manganous Sulfate Solution | APHA (4500-O F) |
| Manganous Sulfate Solution | APHA (4500-O D) |
| Manganous Sulfate Solution | APHA (4500-O C) |
| Manganous Sulfate Solution | APHA (4500-O C) |
| Manganous Sulfate Solution | EPA (360.2)     |
| Manganous Sulfate Solution | EPA (360.2)     |

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 4620-32     | 1 L natural poly    | 24 months                       |

**Recommended Storage:** 15°C - 30°C (59°F - 86°F)



Jose Pena (03/15/2024)

Operations Manager

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# Certificate of Analysis

## Sodium Thiosulfate, 0.0250 Normal (N/40)

**Lot Number:** 4403S13

**Product Number:** 7900

**Manufacture Date:** MAR 29, 2024

**Expiration Date:** SEP 2025

This product is specially formulated to increase its stability. A preservative is added to prevent bacterial contamination. However, all Sodium Thiosulfate solutions are subject to slow chemical deterioration and should be restandardized periodically.

| Name                            | CAS#        | Grade           |
|---------------------------------|-------------|-----------------|
| Water                           | 7732-18-5   | ACS/ASTM/USP/EP |
| Sodium Thiosulfate Pentahydrate | 10102-17-7  | ACS             |
| Organic Preservative            | Proprietary |                 |
| Sodium Carbonate                | 497-19-8    | ACS             |

| Test                                | Specification             | Result            | NIST SRM# |
|-------------------------------------|---------------------------|-------------------|-----------|
| Appearance                          | Colorless liquid          | Passed            |           |
| Assay (vs. Potassium Iodate/Starch) | 0.02499-0.02501 N at 20°C | 0.02501 N at 20°C | 136       |

| Specification                                  | Reference           |
|------------------------------------------------|---------------------|
| Standard Sodium Thiosulfate Solution, 0.0250 N | APHA (4500-S2- F)   |
| Standard Sodium Thiosulfate Titrant            | APHA (4500-O D)     |
| Standard Sodium Thiosulfate Titrant            | APHA (4500-O E)     |
| Standard Sodium Thiosulfate Titrant            | APHA (4500-O F)     |
| Standard Sodium Thiosulfate Titrant, 0.025 N   | APHA (4500-CI B)    |
| Standard Sodium Thiosulfate Titrant            | APHA (4500-O C)     |
| Standard Sodium Thiosulfate Titrant, 0.025 M   | APHA (5530 C)       |
| Standard Sodium Thiosulfate Solution (0.025 N) | EPA (SW-846) (9031) |
| Standard Sodium Thiosulfate solution (0.025 N) | EPA (SW-846) (9034) |

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 7900-1      | 4 L natural poly    | 18 months                       |
| 7900-16     | 500 mL natural poly | 18 months                       |
| 7900-1CT    | 4 L Cubitainer®     | 18 months                       |
| 7900-32     | 1 L natural poly    | 18 months                       |

**Recommended Storage:** 15°C - 30°C (59°F - 86°F)



Paul Brandon (03/29/2024)

Production Manager

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## Certificate of Analysis

Buffer, Reference Standard, pH 4.00 ± 0.01 at 25°C (Color Coded Red)

Lot Number: 4403F90

Product Number: 1501

Manufacture Date: MAR 09, 2024

Expiration Date: FEB 2026

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST Traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

|    |      |      |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|------|------|
| °C | 0    | 5    | 10   | 15   | 20   | 25   | 30   | 35   | 40   | 45   | 50   |
| pH | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.01 | 4.02 | 4.03 | 4.04 | 4.06 |

| Name                     | CAS#        | Grade           |
|--------------------------|-------------|-----------------|
| Water                    | 7732-18-5   | ACS/ASTM/USP/EP |
| Potassium Acid Phthalate | 877-24-7    | Buffer          |
| Preservative             | Proprietary | Commercial      |
| Red Dye                  | Proprietary | Purified        |

| Test       | Specification | Result |
|------------|---------------|--------|
| Appearance | Red liquid    | Passed |

\*Not a certified value.

| Test                                  | Certified Value | Uncertainty | NIST SRM#               |
|---------------------------------------|-----------------|-------------|-------------------------|
| pH at 25°C (Method: SQCP027, SQCP033) | 4.000           | 0.02        | 185i, 186-I-g, 186-II-g |

| Specification               | Reference       |
|-----------------------------|-----------------|
| Commercial Buffer Solutions | ASTM (D 1293 B) |
| Buffer B                    | ASTM (D 5464)   |
| Buffer B                    | ASTM (D 5128)   |

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 1501-2.5    | 10 L Cubitainer®    | 24 months                       |
| 1501-32     | 1 L natural poly    | 24 months                       |
| 1501-5      | 20 L Cubitainer®    | 24 months                       |

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Paul Brandon (03/09/2024)

Production Manager

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# Certificate of Analysis

## Alkaline-Iodide-Azide, Pomeroy Formulation for Dissolved Oxygen (DO) Analysis

**Lot Number:** 1405D67

**Product Number:** 535

**Manufacture Date:** APR 05, 2024

**Expiration Date:** APR 2026

This solution is intended for use with samples with high Dissolved Oxygen content (above 15 mg/L) and for samples with high concentrations of organic material.

| Name             | CAS#       | Grade           |
|------------------|------------|-----------------|
| Water            | 7732-18-5  | ACS/ASTM/USP/EP |
| Sodium Iodide    | 7681-82-5  | ACS             |
| Sodium Hydroxide | 1310-73-2  | ACS             |
| Sodium Azide     | 26628-22-8 | Reagent         |

| Test        | Specification    | Result |
|-------------|------------------|--------|
| Appearance  | Colorless liquid | Passed |
| Free Iodine | To Pass Test     | Passed |

| Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Reference      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Alkaline Iodide-Sodium Azide Solution II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ASTM (D 888 A) |
| Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured. |                |

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 535-32      | 1 L natural poly    | 24 months                       |

**Recommended Storage:** 15°C - 30°C (59°F - 86°F)



Heidi J Green (04/05/2024)  
Operations Manager

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## Sodium Hydroxide (Pellets)

**Material:** 0583  
**Grade:** ACS GRADE  
**Batch Number:** 23B1556310

Chemical Formula: NaOH  
Molecular Weight: 40  
CAS #: 1310-73-2  
Appearance: Pellets

Manufacture Date: 12/14/2022  
Expiration Date: 12/31/2025  
Storage: Room Temperature

| TEST               | SPECIFICATION | ANALYSIS | DISPOSITION |
|--------------------|---------------|----------|-------------|
| Calcium            | <= 0.005 %    | <0.005 % | PASS        |
| Chloride           | <= 0.005 %    | 0.002 %  | PASS        |
| Heavy Metals       | <= 0.002 %    | <0.002 % | PASS        |
| Iron               | <= 0.001 %    | <0.001 % | PASS        |
| Magnesium          | <= 0.002 %    | <0.002 % | PASS        |
| Mercury            | <= 0.1 ppm    | <0.1 ppm | PASS        |
| Nickel             | <= 0.001 %    | <0.001 % | PASS        |
| Nitrogen Compounds | <= 0.001 %    | <0.001 % | PASS        |
| Phosphate          | <= 0.001 %    | <0.001 % | PASS        |
| Potassium          | <= 0.02 %     | <0.02 %  | PASS        |
| Purity             | >= 97.0 %     | 99.2 %   | PASS        |
| Sodium Carbonate   | <= 1.0 %      | 0.5 %    | PASS        |
| Sulfate            | <= 0.003 %    | <0.003 % | PASS        |

Internal ID #: 710

| Signature                                                                                                                                                                                                                                                                                           | Additional Information                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>We certify that this batch conforms to the specifications listed.</p> <p>This document has been electronically produced and is valid without a signature.</p> <p>Leona Edwardson, Quality Control Sr. Manager - Solon<br/>VWR Chemicals, LLC.<br/>28600 Fountain Parkway, Solon OH 44139 USA</p> | <p>Analysis may have been rounded to significant digits in specification limits.</p> <p>Product meets analytical specifications of the grades listed.</p> |



## Sodium Hydroxide (Pellets)

**Material:** 0583  
**Grade:** ACS GRADE  
**Batch Number:** 23B1556310

Chemical Formula: NaOH  
Molecular Weight: 40  
CAS #: 1310-73-2  
Appearance:

Manufacture Date: 12/14/2022  
Expiration Date: 12/31/2025

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

This document has been electronically produced and is valid without a signature.

Leona Edwardson, Quality Control Sr. Manager - Solon  
VWR Chemicals, LLC.  
28600 Fountain Parkway, Solon OH 44139 USA

### Additional Information

Analysis may have been rounded to significant digits in specification limits.

Product meets analytical specifications of the grades listed.

|                   |                                      |                  |           |
|-------------------|--------------------------------------|------------------|-----------|
| Item Number       | ED150                                | Lot Number       | 2ND0156   |
| Item              | Edetate Disodium, Dihydrate, USP     | CAS Number       | 6381-92-6 |
| Molecular Formula | $C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$ | Molecular Weight | 372.24    |

| TEST                                                           | SPECIFICATION                                         |             | RESULT                                                |
|----------------------------------------------------------------|-------------------------------------------------------|-------------|-------------------------------------------------------|
|                                                                | MIN                                                   | MAX         |                                                       |
| ASSAY (DRIED BASIS)                                            | 99.0                                                  | 101.0 %     | 99.5 %                                                |
| pH OF A 5% SOLUTION @ 25°C                                     | 4.0                                                   | 6.0         | 4.6                                                   |
| LOSS ON DRYING                                                 | 8.7                                                   | 11.4 %      | 8.90 %                                                |
| CALCIUM (Ca)                                                   | NO PRECIPITATE IS FORMED                              |             | NO PRECIPITATE IS FORMED                              |
| ELEMENTAL IMPURITIES:                                          |                                                       |             | .                                                     |
| NICKEL (Ni)                                                    | AS REPORTED                                           |             | <0.3 ppm                                              |
| CHROMIUM (Cr)                                                  | AS REPORTED                                           |             | <0.3 ppm                                              |
| NITRILOTRIACETIC ACID[n[(HOCOCH <sub>2</sub> ) <sub>3</sub> N] |                                                       | 0.1 %       | <0.10 %                                               |
| IDENTIFICATION A                                               | MATCHES REFERENCE                                     |             | MATCHES REFERENCE                                     |
| IDENTIFICATION B                                               | RED COLOR IS DISCHARGED, LEAVING A YELLOWISH SOLUTION |             | RED COLOR IS DISCHARGED, LEAVING A YELLOWISH SOLUTION |
| IDENTIFICATION C                                               | MEETS THE REQUIREMENTS FOR SODIUM                     |             | MEETS THE REQUIREMENTS FOR SODIUM                     |
| CERTIFIED HALAL                                                |                                                       |             | CERTIFIED HALAL                                       |
| EXPIRATION DATE                                                |                                                       |             | 10-JUL-2026                                           |
| DATE OF MANUFACTURE                                            |                                                       |             | 11-JUL-2023                                           |
| APPEARANCE                                                     |                                                       |             | WHITE CRYSTALLINE POWDER                              |
| RESIDUAL SOLVENTS                                              |                                                       | AS REPORTED | NO RESIDUAL SOLVENTS PRESENT                          |
| MONOGRAPH EDITION                                              |                                                       |             | USP 2024                                              |

Certificate of Analysis Results Entered By:

CACEVEDO  
Charmian Acevedo  
22-MAY-24 08:12:30

Certificate of Analysis Results Approved By:

GHERRERA  
Genaro Herrera  
22-MAY-24 12:32:01

Spectrum Chemical Mfg Corp  
755 Jersey Avenue  
New Brunswick 08901 NJ



**All pharmaceutical ingredients are tested using current edition of applicable pharmacopeia.**

**Read and understand label and SDS before handling any chemicals. All Spectrum's chemicals are for manufacturing, processing, repacking or research purposes by experienced personnel only. It is the customer's responsibility to provide adequate hazardous material training and ensure that appropriate Personal Protective Equipment (PPE) is used before handling any chemical.**

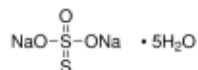
The Elemental Impurities standards implemented by USP and other Pharmaceutical Compendia reflect a growing understanding of the toxicology of trace levels of elemental impurities that can remain in drug substances originating from either raw materials or manufacturing processes. Identifying and quantifying impurities can be critical to predicting the best possible patient outcomes. Elemental Impurities has been a requirement of all products meeting USP/NF, EP and BP monographs since January 1, 2018. More information can be found in USP sections <232> Elemental Impurities – Limits and <233> Elemental Impurities – Procedures. Data for drug substances furnished by Spectrum Chemical Mfg. Corp can be used to ensure that patient daily exposures by oral administration to the selected elements are not exceeded in the formulation of pharmaceutical products.

## Certificate of Analysis

Product Name:

Sodium thiosulfate pentahydrate - ACS reagent, ≥99.5%

**Product Number:** 217247  
**Batch Number:** MKCV5080  
**Brand:** SIGALD  
**CAS Number:** 10102-17-7  
**MDL Number:** MFCD00149186  
**Formula:** Na<sub>2</sub>O<sub>3</sub>S<sub>2</sub> · 5H<sub>2</sub>O  
**Formula Weight:** 248.18 g/mol  
**Quality Release Date:** 10 JAN 2024  
**Recommended Retest Date:** JAN 2029



| Test                                    | Specification                 | Result    |
|-----------------------------------------|-------------------------------|-----------|
| Appearance (Color)                      | Colorless or White            | White     |
| Appearance (Form)                       | Powder or Crystals or Pellets | Crystals  |
| ICP Major Analysis                      | Confirmed                     | Confirmed |
| Confirms Sodium and Sulfur Components   |                               |           |
| Titration by Iodine                     | 99.5 - 101.0 %                | 99.8 %    |
| pH                                      | 6.0 - 8.4                     | 7.2       |
| c = 5%; Water; At 25 Deg C              |                               |           |
| Insoluble Matter                        | ≤ 0.005 %                     | 0.003 %   |
| c = 10%; Water                          |                               |           |
| Nitrogen Compounds                      | ≤ 0.002 %                     | < 0.002 % |
| Sulfate & Sulfite (as SO <sub>4</sub> ) | ≤ 0.1 %                       | < 0.1 %   |
| Sulfide                                 | Pass                          | Pass      |
| Meets ACS Requirements                  | Current ACS Specification     | Conforms  |
| Recommended Retest Period               | -----                         | -----     |
| 5 Years                                 |                               |           |



Larry Coers, Director  
Quality Control  
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



# Certificate of Analysis

## Sodium Hypochlorite Solution, 5% available Chlorine

**Lot Number:** 2407F34**Product Number:** 7495.5**Manufacture Date:** JUL 12, 2024**Expiration Date:** JAN 2025

This solution is subject to slow decomposition upon exposure to air. Keep container tightly capped. Refrigeration may improve stability.  
When used in the Phenate method for Ammonia, APHA recommends replacing this solution about every 2 months.

| Name                | CAS#      | Grade      |
|---------------------|-----------|------------|
| Water               | 7732-18-5 | Commercial |
| Sodium Hypochlorite | 7681-52-9 | Commercial |

| Test                                  | Specification                       | Result                       | NIST SRM# |
|---------------------------------------|-------------------------------------|------------------------------|-----------|
| Appearance                            | Colorless to greenish-yellow liquid | Passed                       |           |
| Assay (vs. Sodium Thiosulfate/Starch) | 4.75-5.25 % (w/w) Cl <sub>2</sub>   | 5.05 % (w/w) Cl <sub>2</sub> | 136       |

| Specification           | Reference         |
|-------------------------|-------------------|
| Sodium Hypochlorite, 5% | APHA (4500-NH3 F) |
| Sodium Hypochlorite     | ASTM (D 4785)     |

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 7495.5-1    | 4 L black poly      | 6 months                        |
| 7495.5-16   | 500 mL amber poly   | 6 months                        |
| 7495.5-32   | 1 L amber poly      | 6 months                        |
| 7495.5-8    | 250 mL amber poly   | 6 months                        |

**Recommended Storage:** 15°C - 30°C (59°F - 86°F)

Jose Pena (07/12/2024)  
Operations Manager

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An ISO 9001 Certified Company

Loveland, CO 80539

(970) 669-3050

## Certificate of Analysis

***This is a Component of 1486266 / LOT A4169***

**PRODUCT:** BOD Nutrient Buffer Pillows

**PRODUCT NUMBER:** 1486227

**LOT NUMBER:** A4169

**MANUFACTURE DATE:** 06/24/2024

**DATE OF ANALYSIS:** 07/03/2024

| TEST                                              | SPECIFICATIONS   | RESULTS   |
|---------------------------------------------------|------------------|-----------|
| Calcium Concentration of a diluted pillow         | 0.93 to 1.29 ppm | 0.960 ppm |
| Magnesium Concentration of a diluted pillow       | 0.35 to 0.48 ppm | 0.390 ppm |
| pH in a 6 L of DI water                           | 7.1 to 7.6       | 7.37      |
| Ammonia Concentration of a diluted pillow         | 0.57 to 0.79 ppm | 0.593 ppm |
| Iron Concentration of a diluted pillow            | 0.27 to 0.36 ppm | 0.311 ppm |
| Sterility                                         | To Pass          | Passed    |
| Phosphorus Concentration of a diluted pillow      | 7.6 to 10.3 ppm  | 8.32 ppm  |
| Five Day Change in Dissolved Oxygen Concentration | -0.2 to 0.2 ppm  | 0.03 ppm  |

The expiration date is Jun 2029

Certified by: *Scott Als*

Analytical Services Chemist



# Certificate of Analysis

## Starch Indicator, 0.5% (w/v), Mercury Free, for Iodometric Titrations

Lot Number: 4408P62

Product Number: 8000

Manufacture Date: AUG 28, 2024

Expiration Date: AUG 2026

This product is Mercury-free.

| Name            | CAS#      | Grade           |
|-----------------|-----------|-----------------|
| Water           | 7732-18-5 | ACS/ASTM/USP/EP |
| Starch, soluble | 9005-84-9 | ACS             |
| Salicylic Acid  | 69-72-7   | ACS             |

| Test                | Specification                                     | Result |
|---------------------|---------------------------------------------------|--------|
| Appearance          | White translucent liquid                          | Passed |
| Suitability for Use | Colorless (Iodine absent) - Blue (Iodine present) | Passed |

| Specification             | Reference           |
|---------------------------|---------------------|
| Starch Solution           | APHA (4500-S2- F)   |
| Starch Indicator Solution | APHA (4500-CI B)    |
| Starch Indicator          | APHA (4500-SO32- B) |
| Starch indicator solution | APHA (2350 B)       |
| Starch indicator solution | APHA (2350 E)       |
| Starch Solution           | APHA (510 B)        |
| Starch Solution           | APHA (5530 C)       |
| Starch Indicator          | APHA (4500-CI C)    |
| Starch Indicator          | EPA (345.1)         |

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 8000-1      | 4 L natural poly    | 24 months                       |
| 8000-16     | 500 mL natural poly | 24 months                       |
| 8000-32     | 1 L natural poly    | 24 months                       |

**Recommended Storage:** 15°C - 30°C (59°F - 86°F)

A handwritten signature in blue ink that reads "Paul Brandon". The signature is fluid and cursive, with the first name "Paul" and last name "Brandon" clearly distinguishable.

Paul Brandon (08/28/2024)  
Production Manager

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# SHIPPING DOCUMENTS



284 Sheffield Street, Mountainside, NJ 07092

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www.chemtech.net

## CHAIN OF CUSTODY RECORD

Alliance Project Number:

P5006

COC Number: 2042106

Page 1 of 1

## CLIENT INFORMATION

COMPANY: ENTACT, LLC

ADDRESS: 150 Bay Street, Suite 806

CITY: Jersey City STATE: NJ ZIP: 07302

ATTENTION: Jarod Stanfield

PHONE: 570-886-0442

FAX:

## PROJECT INFORMATION

PROJECT NAME: 540 Degraw St Brooklyn, NY

PROJECT #: E9309 LOCATION: Brooklyn, NY

PROJECT MANAGER: Jarod Stanfield

E-MAIL: jstanfield@entact.com

PHONE: 570-886-0442

FAX:

## BILLING INFORMATION

BILL TO: ENTACT, LLC

PO# E9309

ADDRESS: 999 Oakmont Plaza Drive, Suite 300

CITY: Westmont

STATE: IL ZIP: 60559

ATTENTION: Wendy Murray

PHONE: 800-836-8228

## ANALYSIS

| SPLP for VOCs | Metals | Flashpoint + PCB | VOC | SVOC + Chloride (Anions) | BOD+TSS |   |   |   |  |
|---------------|--------|------------------|-----|--------------------------|---------|---|---|---|--|
| 1             | 2      | 3                | 4   | 5                        | 6       | 7 | 8 | 9 |  |

## PRESERVATIVES

## COMMENTS

← Specify Preservatives  
A-HCl B-HNO3  
C-H2SO4 D-NaOH  
E-ICE F-Other

| CHEMTECH<br>SAMPLE<br>ID | PROJECT<br>SAMPLE IDENTIFICATION | SAMPLE<br>MATRIX | SAMPLE<br>TYPE |      | SAMPLE<br>COLLECTION |       | # of Bottles |   |   |   |   |   |   |  |  |  |  |
|--------------------------|----------------------------------|------------------|----------------|------|----------------------|-------|--------------|---|---|---|---|---|---|--|--|--|--|
|                          |                                  |                  | COMP           | GRAB | DATE                 | TIME  |              | E | B | E | E | E | E |  |  |  |  |
| 1.                       | SPLP-C4-2                        | Soil             |                | X    | 11/25                | 10:00 | 1            | X |   |   |   |   |   |  |  |  |  |
| 2.                       | SPLP-C4-3                        | Soil             |                | X    | 11/25                | 10:00 | 1            | X |   |   |   |   |   |  |  |  |  |
| 3.                       | SPLP-C5-1                        | Soil             |                | X    | 11/25                | 10:00 | 1            | X |   |   |   |   |   |  |  |  |  |
| 4.                       | SPLP-C5-2                        | Soil             |                | X    | 11/25                | 10:00 | 1            | X |   |   |   |   |   |  |  |  |  |
| 5.                       | SPLP-C5-3                        | Soil             |                | X    | 11/25                | 10:00 | 1            | X |   |   |   |   |   |  |  |  |  |
| 6.                       | SPLP-C6-1                        | Soil             |                | X    | 11/25                | 10:00 | 1            | X |   |   |   |   |   |  |  |  |  |
| 7.                       | SPLP-C6-2                        | Soil             |                | X    | 11/25                | 10:00 | 1            | X |   |   |   |   |   |  |  |  |  |
| 8.                       | SPLP-C6-3                        | Soil             |                | X    | 11/25                | 10:00 | 1            | X |   |   |   |   |   |  |  |  |  |
| 9.                       | SPLP-C10-1                       | Soil             |                | X    | 11/25                | 10:00 | 1            | X |   |   |   |   |   |  |  |  |  |
| 10.                      | SPLP-C10-2                       | Soil             |                | X    | 11/25                | 10:00 | 1            | X |   |   |   |   |   |  |  |  |  |

## SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

|                                               |                          |                                 |                                                                                                                                                                                                            |
|-----------------------------------------------|--------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RELINQUISHED BY SAMPLER<br>1. Jarod Stanfield | DATE/TIME<br>11/26 10:17 | RECEIVED BY<br>1020<br>11-26-24 | Conditions of bottles or coolers at receipt: <input type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant <input type="checkbox"/> Cooler Temp 2.8°C <input type="checkbox"/> Ice in Cooler?: |
| RELINQUISHED BY<br>2.                         | DATE/TIME                | RECEIVED BY                     | Comments:                                                                                                                                                                                                  |
| RELINQUISHED BY<br>                           | DATE/TIME<br>11-26-24    | RECEIVED FOR LAB BY<br>3.       |                                                                                                                                                                                                            |

Page 1 of 2

SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight  
ALLIANCE: ☐ Picked Up ☐ Overnight

Shipment Complete  
☐ YES ☐ NO

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT

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## CHAIN OF CUSTODY RECORD

Alliance Project Number:

P5006

COC Number: 2042106

Page 2 of 2

| CLIENT INFORMATION                                                                                                               |                               | PROJECT INFORMATION                                                                                                                                                                                                                                                                                                                                                                           |                                             |                        |                                                                                                                                                                                                              | BILLING INFORMATION                                                                                                                                                                                                                                                                                                                                                                                                                                |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------|---|---|-------------------------------------------------------------------------------|---|---------------|--------|------------------------------------------------------------------------------|-----|------------------------|---------|--|--|--|--|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|
| COMPANY: ENTACT, LLC                                                                                                             |                               | PROJECT NAME: 540 Degraw St Brooklyn, NY                                                                                                                                                                                                                                                                                                                                                      |                                             |                        |                                                                                                                                                                                                              | BILL TO: ENTACT, LLC                                                                                                                                                                                                                                                                                                                                                                                                                               |              |   |                                                                                                                                                                                    |   | PO# E9309            |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ADDRESS: 150 Bay Street, Suite 806                                                                                               |                               | PROJECT #: E9309 LOCATION: Brooklyn, NY                                                                                                                                                                                                                                                                                                                                                       |                                             |                        |                                                                                                                                                                                                              | ADDRESS: 999 Oakmont Plaza Drive, Suite 300                                                                                                                                                                                                                                                                                                                                                                                                        |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CITY: Jersey City STATE: NJ ZIP: 07302                                                                                           |                               | PROJECT MANAGER: Jarod Stanfield                                                                                                                                                                                                                                                                                                                                                              |                                             |                        |                                                                                                                                                                                                              | CITY: Westmont                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |   |                                                                                                                                                                                    |   | STATE: IL ZIP: 60559 |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ATTENTION: Jarod Stanfield                                                                                                       |                               | E-MAIL: jstanfield@entact.com                                                                                                                                                                                                                                                                                                                                                                 |                                             |                        |                                                                                                                                                                                                              | ATTENTION: Wendy Murray                                                                                                                                                                                                                                                                                                                                                                                                                            |              |   |                                                                                                                                                                                    |   | PHONE: 800-936-8228  |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PHONE: 570-886-0442 FAX:                                                                                                         |                               | PHONE: 570-886-0442 FAX:                                                                                                                                                                                                                                                                                                                                                                      |                                             |                        |                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DATA TURNAROUND INFORMATION                                                                                                      |                               | DATA DELIVERABLE INFORMATION                                                                                                                                                                                                                                                                                                                                                                  |                                             |                        |                                                                                                                                                                                                              | ANALYSIS                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FAX: 5 DAYS*<br>HARD COPY: DAYS*<br>EDD: 5 DAYS*<br>* TO BE APPROVED BY ALLIANCE<br>STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS |                               | <input type="checkbox"/> RESULTS ONLY <input type="checkbox"/> USEPA CLP<br><input type="checkbox"/> RESULTS + QC <input type="checkbox"/> New York State ASP "B"<br><input type="checkbox"/> New Jersey REDUCED <input type="checkbox"/> New York State ASP "A"<br><input type="checkbox"/> New Jersey CLP <input type="checkbox"/> Other _____<br><input type="checkbox"/> EDD Format _____ |                                             |                        |                                                                                                                                                                                                              | <table border="1"><thead><tr><th>SPLP for VOCs</th><th>Metals</th><th>Flashpoint + PCB</th><th>VOC</th><th>SVOC+Chloride (Anions)</th><th>BOD+TSS</th><th></th><th></th><th></th><th></th></tr><tr><th>10</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th></th><th></th><th></th></tr></thead><tbody><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table> |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   | SPLP for VOCs | Metals | Flashpoint + PCB                                                             | VOC | SVOC+Chloride (Anions) | BOD+TSS |  |  |  |  | 10 | 11 | 12 | 13 | 14 | 15 | 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SPLP for VOCs                                                                                                                    | Metals                        | Flashpoint + PCB                                                                                                                                                                                                                                                                                                                                                                              | VOC                                         | SVOC+Chloride (Anions) | BOD+TSS                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10                                                                                                                               | 11                            | 12                                                                                                                                                                                                                                                                                                                                                                                            | 13                                          | 14                     | 15                                                                                                                                                                                                           | 16                                                                                                                                                                                                                                                                                                                                                                                                                                                 |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                  |                               |                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                        |                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                  |                               |                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                        |                                                                                                                                                                                                              | PRESERVATIVES                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   | COMMENTS      |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CHEMTECH SAMPLE ID                                                                                                               | PROJECT SAMPLE IDENTIFICATION | SAMPLE MATRIX                                                                                                                                                                                                                                                                                                                                                                                 | SAMPLE TYPE                                 |                        | SAMPLE COLLECTION                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                    | # of Bottles | E | B                                                                                                                                                                                  | E | E                    | E | E |                                                                               |   |               |        | <-- Specify Preservatives<br>A-HCl B-HNO3<br>C-H2SO4 D-NaOH<br>E-ICE F-Other |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                  |                               |                                                                                                                                                                                                                                                                                                                                                                                               | COMP                                        | GRAB                   | DATE                                                                                                                                                                                                         | TIME                                                                                                                                                                                                                                                                                                                                                                                                                                               |              | 1 | 2                                                                                                                                                                                  | 3 | 4                    | 5 | 6 | 7                                                                             | 8 | 9             |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.                                                                                                                               | SPLP-C10-3                    | Soil                                                                                                                                                                                                                                                                                                                                                                                          |                                             | X                      | 11/25                                                                                                                                                                                                        | 13:00                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1            | X |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.                                                                                                                               | SPLP-C11-1                    | Soil                                                                                                                                                                                                                                                                                                                                                                                          |                                             | X                      | 11/25                                                                                                                                                                                                        | 13:00                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1            | X |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.                                                                                                                               | SPLP-C11-2                    | Soil                                                                                                                                                                                                                                                                                                                                                                                          |                                             | X                      | 11/25                                                                                                                                                                                                        | 13:00                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1            | X |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4.                                                                                                                               | SPLP-C11-3                    | Soil                                                                                                                                                                                                                                                                                                                                                                                          |                                             | X                      | 11/25                                                                                                                                                                                                        | 13:00                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1            | X |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5.                                                                                                                               | SPLP-C12-1                    | Soil                                                                                                                                                                                                                                                                                                                                                                                          |                                             | X                      | 11/25                                                                                                                                                                                                        | 13:00                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1            | X |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6.                                                                                                                               | SPLP-C12-2                    | Soil                                                                                                                                                                                                                                                                                                                                                                                          |                                             | X                      | 11/25                                                                                                                                                                                                        | 13:00                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1            | X |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7.                                                                                                                               | SPLP-C12-3                    | Soil                                                                                                                                                                                                                                                                                                                                                                                          |                                             | X                      | 11/25                                                                                                                                                                                                        | 13:00                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1            | X |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8.                                                                                                                               | TW-WTS-02                     | Surface Water                                                                                                                                                                                                                                                                                                                                                                                 |                                             | X                      | 11/25                                                                                                                                                                                                        | 15:30                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4            |   | X                                                                                                                                                                                  | X | X                    | X | X |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9.                                                                                                                               |                               |                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                        |                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10.                                                                                                                              |                               |                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                        |                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY                           |                               |                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                        |                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RELINQUISHED BY SAMPLER<br>1. Jarod Stanfield                                                                                    |                               | DATE/TIME<br>11/26 10:17                                                                                                                                                                                                                                                                                                                                                                      | RECEIVED BY<br>1. [Signature] 1020 11-26-24 |                        | Conditions of bottles or coolers at receipt: <input type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant <input type="checkbox"/> Cooler Temp 28°C<br><input type="checkbox"/> Ice in Cooler?: |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RELINQUISHED BY<br>2.                                                                                                            |                               | DATE/TIME                                                                                                                                                                                                                                                                                                                                                                                     | RECEIVED BY<br>2.                           |                        | Comments:                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |   |                                                                                                                                                                                    |   |                      |   |   |                                                                               |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RELINQUISHED BY<br>3. [Signature]                                                                                                |                               | DATE/TIME<br>11-26-24                                                                                                                                                                                                                                                                                                                                                                         | RECEIVED FOR LAB BY<br>3.                   |                        | Page 2 of 2                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |   | SHIPPED VIA: CLIENT: <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Overnight<br>ALLIANCE: <input type="checkbox"/> Picked Up <input type="checkbox"/> Overnight |   |                      |   |   | Shipment Complete<br><input type="checkbox"/> YES <input type="checkbox"/> NO |   |               |        |                                                                              |     |                        |         |  |  |  |  |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT

YELLOW - ALLIANCE COPY

PINK - SAMPLER COPY



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

### Laboratory Certification

| Certified By         | License No.      |
|----------------------|------------------|
|                      |                  |
| CAS EPA CLP Contract | 68HERH20D0011    |
|                      |                  |
| Connecticut          | PH-0830          |
|                      |                  |
| DOD ELAP (ANAB)      | L2219            |
|                      |                  |
| Maine                | 2024021          |
|                      |                  |
| Maryland             | 296              |
|                      |                  |
| New Hampshire        | 255424 Rev 1     |
|                      |                  |
| New Jersey           | 20012            |
|                      |                  |
| New York             | 11376            |
|                      |                  |
| Pennsylvania         | 68-00548         |
|                      |                  |
| Soil Permit          | 525-24-234-08441 |
|                      |                  |
| Texas                | T104704488       |

## LOGIN REPORT/SAMPLE TRANSFER

**Order ID :** P5006      ENTA05

**Order Date :** 11/26/2024 11:21:00 AM

**Project Mgr :** Kiran

**Client Name :** ENTACT

**Project Name :** 540 Degraw St, Brooklyn, N

**Report Type :** Level 1

**Client Contact :** Jarod Stanfield

**Receive DateTime :** 11/26/2024 2:20:00 PM

**EDD Type :** Excel NJ

**Invoice Name :** ENTACT

**Purchase Order :**

**Hard Copy Date :**

**Invoice Contact :** Jarod Stanfield

**Date Signoff :** 11/26/2024 2:43:40 PM

| LAB ID   | CLIENT ID | MATRIX | SAMPLE DATE | SAMPLE TIME | TEST | TEST GROUP   | METHOD   | FAX DATE | DUE DATES   |
|----------|-----------|--------|-------------|-------------|------|--------------|----------|----------|-------------|
| P5006-18 | TW-WTS-02 | Water  | 11/25/2024  | 15:30       |      | VOCMS Group4 | 8260-Low |          | 5 Bus. Days |

**Relinquished By :**

**Date / Time :** 11-26-24 1530

**Received By :**

**Date / Time :**

**Storage Area :** VOA Refridgerator Room