



# Environmental Chemists, Inc.

6602 Windmill Way, Wilmington, NC 28405 • 910.392.0223 Lab • 910.392.4424 Fax  
710 Bowsertown Road, Manteo, NC 27954 • 252.473.5702 Lab/Fax  
255-A Wilmington Highway, Jacksonville, NC 28540 • 910.347.5843 Lab/Fax

ANALYTICAL & CONSULTING CHEMISTS

info@environmentalchemists.com

## City of Boiling Spring Lakes

9 East Boiling Spring Road

Boiling Spring Lake NC 28461

Attention:

**Date of Report:** Sep 08, 2026

**Customer PO #:**

**Customer ID:** 08100287

**Report #:** 2026-19970

**Project ID:** Lake Sample

| Lab ID   | Sample ID: Boiling Springs Lakes | Collect Date/Time | Matrix | Sampled by   |
|----------|----------------------------------|-------------------|--------|--------------|
| 26-49111 | Site: Spring Lake                | 9/1/2026 9:20 AM  | Water  | Reece Warfel |

| Test           | Method            | Results            | Date Analyzed |
|----------------|-------------------|--------------------|---------------|
| Enterococci    | Enterolert IDEXX  | 4 MPN/100ml        | 09/01/2026    |
| Fecal Coliform | SM 9222 D-2015 MF | 380 Colonies/100mL | 09/01/2026    |
| E. Coli        | SM 9223B-MW       | 18 MPN/100ml       | 09/01/2026    |
| Total Coliform | SM 9223B-MW       | >2420 MPN/100ml    | 09/01/2026    |

| Lab ID   | Sample ID: Boiling Springs Lakes | Collect Date/Time | Matrix | Sampled by   |
|----------|----------------------------------|-------------------|--------|--------------|
| 26-49112 | Site: Tate Lake                  | 9/1/2026 9:40 AM  | Water  | Reece Warfel |

| Test           | Method            | Results            | Date Analyzed |
|----------------|-------------------|--------------------|---------------|
| Enterococci    | Enterolert IDEXX  | 1 MPN/100ml        | 09/01/2026    |
| Fecal Coliform | SM 9222 D-2015 MF | 364 Colonies/100mL | 09/01/2026    |
| E. Coli        | SM 9223B-MW       | 6 MPN/100ml        | 09/01/2026    |
| Total Coliform | SM 9223B-MW       | >2420 MPN/100ml    | 09/01/2026    |

| Lab ID   | Sample ID: Boiling Springs Lakes | Collect Date/Time | Matrix | Sampled by   |
|----------|----------------------------------|-------------------|--------|--------------|
| 26-49117 | Site: Seminole Lake              | 9/1/2026 9:50 AM  | Water  | Reece Warfel |

| Test           | Method            | Results            | Date Analyzed |
|----------------|-------------------|--------------------|---------------|
| Enterococci    | Enterolert IDEXX  | <1 MPN/100ml       | 09/01/2026    |
| Fecal Coliform | SM 9222 D-2015 MF | 280 Colonies/100mL | 09/01/2026    |
| E. Coli        | SM 9223B-MW       | 29 MPN/100ml       | 09/01/2026    |
| Total Coliform | SM 9223B-MW       | 1987 MPN/100ml     | 09/01/2026    |



# Environmental Chemists, Inc.

6602 Windmill Way, Wilmington, NC 28405 • 910.392.0223 Lab • 910.392.4424 Fax  
710 Bowsertown Road, Manteo, NC 27954 • 252.473.5702 Lab/Fax  
255-A Wilmington Highway, Jacksonville, NC 28540 • 910.347.5843 Lab/Fax

ANALYTICAL & CONSULTING CHEMISTS

info@environmentalchemists.com

**City of Boiling Spring Lakes**  
9 East Boiling Spring Road  
Boiling Spring Lake NC 28461  
Attention:

**Date of Report:** Sep 08, 2026  
**Customer PO #:**  
**Customer ID:** 08100287  
**Report #:** 2026-19970  
**Project ID:** Lake Sample

| Lab ID         | Sample ID: Boiling Springs Lakes | Collect Date/Time  | Matrix        | Sampled by   |
|----------------|----------------------------------|--------------------|---------------|--------------|
| 26-49118       | Site: Mirror Lake                | 9/1/2026 10:00 AM  | Water         | Reece Warfel |
| Test           | Method                           | Results            | Date Analyzed |              |
| Enterococci    | Enterolert IDEXX                 | 9 MPN/100ml        | 09/01/2026    |              |
| Fecal Coliform | SM 9222 D-2015 MF                | 310 Colonies/100mL | 09/01/2026    |              |
| E. Coli        | SM 9223B-MW                      | 8 MPN/100ml        | 09/01/2026    |              |
| Total Coliform | SM 9223B-MW                      | >2420 MPN/100ml    | 09/01/2026    |              |

Comment:

Reviewed by: 

## Sample Receipt Checklist

Client: City of Boiling Springs Lakes Date: 9/1/26 Report Number: 2026-19970

|                                            |                             |                                                                           |                                                              |                              |                                |                                |
|--------------------------------------------|-----------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------|--------------------------------|--------------------------------|
| Receipt of sample:                         |                             | ECHM Pickup <input checked="" type="checkbox"/>                           | Client Delivery <input type="checkbox"/>                     | UPS <input type="checkbox"/> | FedEx <input type="checkbox"/> | Other <input type="checkbox"/> |
| <input type="checkbox"/> YES               | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A                                   | 1. Were custody seals present on the cooler?                 |                              |                                |                                |
| <input type="checkbox"/> YES               | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A                                   | 2. If custody seals were present, were they intact/unbroken? |                              |                                |                                |
| Original temperature upon receipt          |                             | <u>2.7</u> °C                                                             | Corrected temperature upon receipt                           |                              | °C                             |                                |
| How temperature taken:                     |                             | <input type="checkbox"/> Temperature Blank                                | <input checked="" type="checkbox"/> Against Bottles          |                              |                                |                                |
| IR Gun ID: Thomas Traceable S/N: 250289912 |                             | IR Gun Correction Factor °C: 0.0                                          |                                                              |                              |                                |                                |
| <input checked="" type="checkbox"/> YES    | <input type="checkbox"/> NO | 3. If temperature of cooler exceeded 6 °C, was Project Mgr./QA notified?  |                                                              |                              |                                |                                |
| <input checked="" type="checkbox"/> YES    | <input type="checkbox"/> NO | 4. Were proper custody procedures (relinquished/received) followed?       |                                                              |                              |                                |                                |
| <input checked="" type="checkbox"/> YES    | <input type="checkbox"/> NO | 5. Were sample ID's listed on the COC?                                    |                                                              |                              |                                |                                |
| <input checked="" type="checkbox"/> YES    | <input type="checkbox"/> NO | 6. Were samples ID's listed on sample containers?                         |                                                              |                              |                                |                                |
| <input checked="" type="checkbox"/> YES    | <input type="checkbox"/> NO | 7. Were collection date and time listed on the COC?                       |                                                              |                              |                                |                                |
| <input checked="" type="checkbox"/> YES    | <input type="checkbox"/> NO | 8. Were tests to be performed listed on the COC?                          |                                                              |                              |                                |                                |
| <input checked="" type="checkbox"/> YES    | <input type="checkbox"/> NO | 9. Did samples arrive in proper containers for each test?                 |                                                              |                              |                                |                                |
| <input checked="" type="checkbox"/> YES    | <input type="checkbox"/> NO | 10. Did samples arrive in good condition for each test?                   |                                                              |                              |                                |                                |
| <input checked="" type="checkbox"/> YES    | <input type="checkbox"/> NO | 11. Was adequate sample volume available?                                 |                                                              |                              |                                |                                |
| <input checked="" type="checkbox"/> YES    | <input type="checkbox"/> NO | 12. Were samples received within proper holding time for requested tests? |                                                              |                              |                                |                                |
| <input type="checkbox"/> YES               | <input type="checkbox"/> NO | 13. Were acid preserved samples received at a pH of <2? *                 |                                                              |                              |                                |                                |
| <input type="checkbox"/> YES               | <input type="checkbox"/> NO | 14. Were cyanide samples received at a pH >12?                            |                                                              |                              |                                |                                |
| <input type="checkbox"/> YES               | <input type="checkbox"/> NO | 15. Were sulfide samples received at a pH >9?                             |                                                              |                              |                                |                                |
| <input type="checkbox"/> YES               | <input type="checkbox"/> NO | 16. Were NH3/TKN/Phenol received at a chlorine residual of <0.5 m/L? **   |                                                              |                              |                                |                                |
| <input type="checkbox"/> YES               | <input type="checkbox"/> NO | 17. Were Sulfide/Cyanide received at a chlorine residual of <0.5 m/L?     |                                                              |                              |                                |                                |
| <input type="checkbox"/> YES               | <input type="checkbox"/> NO | 18. Were orthophosphate samples filtered in the field within 15 minutes?  |                                                              |                              |                                |                                |

\* VOC/Volatiles are pH checked at time of analysis and recorded on the bench sheet

\*\* Halogen samples are checked for Chlorine at time of analysis and recorded on the bench sheet

Sample Preservation: (Must be completed for any sample(s) incorrectly preserved or with headspace)

Sample(s) \_\_\_\_\_ were received incorrectly preserved and were adjusted accordingly

by adding (circle one) H<sub>2</sub>SO<sub>4</sub> HNO<sub>3</sub> HCl NaOH

Time of preservation: \_\_\_\_\_ If more than one preservative is needed, note in comments below.

Note: Ref. customer service immediately for incorrectly preserved samples. Obtain new sample or notes the state lab is directed to analyzed by the customer. Who was notified: \_\_\_\_\_ Date and time: \_\_\_\_\_

Volatiles Sample(s) \_\_\_\_\_ were received with headspace

COMMENTS:



Analytical & Consulting Chemists

# ENVIRONMENTAL CHEMISTS, INC

NCDENR: DWQ CERTIFICATION # 94 NCDHHS: DLS CERTIFICATION # 37729

6602 Windmill Way Wilmington, NC 28405  
OFFICE: 910-392-0223 FAX 910-392-4424  
info@environmentalchemists.com

## COLLECTION AND CHAIN OF CUSTODY

|                                      |               |                     |
|--------------------------------------|---------------|---------------------|
| Client: City of Boiling Spring Lakes | PROJECT NAME: | REPORT NO: 26-19470 |
| ADDRESS:                             | CONTACT NAME: | PO NO:              |
|                                      | REPORT TO:    | PHONE/FAX:          |
|                                      | COPY TO:      | email:              |

Sampled By: TRW SAMPLE TYPE: I = Influent, E = Effluent, W = Well, ST = Stream, SO = Soil, SL = Sludge, Other:

| Sample Identification | Collection |       |      | Sample Type | Composite or Grab | Container (P or G) | Chlorine mg/L | pH of bottle | LAB ID NUMBER | PRESERVATION |     |       |      |      |      |          | ANALYSIS REQUESTED                      |       |
|-----------------------|------------|-------|------|-------------|-------------------|--------------------|---------------|--------------|---------------|--------------|-----|-------|------|------|------|----------|-----------------------------------------|-------|
|                       | Date       | Time  | Temp |             |                   |                    |               |              |               | NONE         | HCL | H2SO4 | HNO3 | NAOH | THIO | FILTERED |                                         | OTHER |
|                       |            |       |      |             |                   |                    |               |              |               |              |     |       |      |      |      |          |                                         |       |
| Spring Lake           | 9/1/26     | 9:20  |      |             | C                 | P                  |               |              | 49111         |              |     |       |      |      |      |          | E. Coli, Enteroc, Fecal, Total Coliform |       |
|                       |            | 1     |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            | 9:40  |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            | 1     |      |             | G                 | G                  |               |              | 49112         |              |     |       |      |      |      |          | E. Coli, Enteroc, Fecal, Total Coliform |       |
| Tate Lake             |            | 1     |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            | 4:50  |      |             | G                 | G                  |               |              | 49113         |              |     |       |      |      |      |          | E. Coli, Enteroc, Fecal, Total Coliform |       |
|                       |            | 1     |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            | 10:00 |      |             | G                 | G                  |               |              | 49114         |              |     |       |      |      |      |          | E. Coli, Enteroc, Fecal, Total Coliform |       |
| Mirror Lake           |            | 1     |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | C                 | P                  |               |              |               |              |     |       |      |      |      |          |                                         |       |
|                       |            |       |      |             | G                 | G                  |               |              |               |              |     |       |      |      |      |          |                                         |       |